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**THE IMPACT OF SUSTAINABLE BRANDING USING
BIG DATA AND BUSINESS ANALYTICS IN THE
MARKET RESEARCH INDUSTRY**

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- 3. The role of sustainable branding using the Sustainable Development Goals: Analysing the key performance indicators through a conceptual framework**
- 4. Sustainability framework using the Sustainable development goals of the UN: The advantages of A-Priori coding.**
- 5. The impact of Sustainable Branding in the Data-Driven Industry using UN Agenda 2030**

Declaration

I, Vishnu Syam Vishnuvinayak Syamlal, hereby declare that this DBA thesis titled "The Impact of Sustainable Branding using Big Data and Business Analytics in the Market Research Industry," submitted to the University of Wales Trinity Saint David, London Campus is an original work carried out by me. Any assistance received from external sources has been duly acknowledged in the references section.

I confirm that this thesis has not been submitted for any other degree or examination at any other institution. All the data presented in this thesis are authentic and have been collected through ethical means. I take full responsibility for any errors, omissions, or inconsistencies in this thesis.

Furthermore, I authorise the university to make copies of this thesis available for academic purposes, subject to the condition that the author's name is acknowledged in any reference made to the material.

Signed: Vishnu Syam Vishnuvinayak Syamlal

Date: 11TH September 2023

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The Researcher

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Abstract

Aim: The research aimed to explore how sustainable branding and big data analytics could enhance brand equity and sustainability in the market research industry. It reviewed existing literature, analysed branding strategies of data-driven companies, identified key attributes for sustainable positioning, used qualitative research methods to investigate competitive advantage, and created a theoretical framework to demonstrate how sustainable branding could improve performance in data-driven companies using big data and analytics.

Methodology: This research used qualitative methods for a systematic review of sustainability, branding, and business analytics in the market research industry. It involved semi-structured interviews with 38 senior managers and directors from 24 companies across 8 countries. Despite the impact of COVID-19 on data collection due to changes in working patterns, this study showcased the potential of modern qualitative methods such as the 'inductive a priori' model. It utilized advanced technologies and multi-disciplinary research to tackle complex industry concepts. The research sought to bring about sustainable change in the market research industry.

Results: The results of the study indicated that sustainable branding was positively related to consumer behaviour, corporate reputation, and financial performance. Big data and business analytics offered valuable insights into consumer preferences, attitudes, and behaviour which helped companies to develop and manage successful sustainable branding strategies. The study provided a comprehensive framework for understanding the role of sustainable branding, big data, and business analytics in the market research industry.

Contribution to knowledge: The contribution of the study lies in identifying the importance of sustainable branding and its relationship with big data and business analytics. The study highlighted the potential benefits of integrating sustainability practices into branding strategies and suggested practical implications for companies to adopt sustainable branding approaches. The findings of the study offered insights into the value of big data and business analytics in the market research industry and provided a basis for future research in this field.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Contemporary marketing became increasingly relevant with the rise of data-driven companies. The history of marketing was traced back to the 1920s when a marketing era emerged in response to aggressive sales tactics that prioritized high volume of sales over customer perceptions (Borden, 1964). This necessitated a shift in marketing strategy, and specialized groups including social scientists, psychologists, educators, inventor entrepreneurs, and others were formed to gather insights from customers (Jones, 2013). The collected data enabled the evolution of the market research industry, allowing companies to enhance their brand value by focusing on consumer attributes and overall market performance (Loučanová et al., 2021). In today's digitally exposed consumer environment, a mismatch between customer expectations and product characteristics could quickly harm a brand, highlighting the need to strengthen brands during uncertain times such as economic recessions. However, the challenge remained in urging organizations to consider both intuition and analytical information in an ever-changing environment (Orlandi & Pierce, 2020).

Building a brand requires a branding strategy that organizes market segmentation based on customer psychology and brand identity. With efficient technologies driving competition in the market, efficient strategies are necessary to build competitive brands (Kotler et al., 2021). Henderson (1989) emphasized that natural competition determined probability and evolution, while strategy was motivated by reason and revolved mostly around a revolutionary character,

meaning a disruptive character in business. Therefore, implementing a well-defined branding strategy was crucial for creating value for businesses (Campbell & Alexander, 1997). Brand analytics, made possible by big data and artificial intelligence in this digital era, can facilitate a well-defined branding strategy.

The digital era has resulted in a demand for technological innovations and implementations in global business through multichannel platforms. However, there exists a significant gap in literature between researchers and practitioners in the field, making it an attractive area of study. Moreover, sustainability has become a critical concept in the market research industry in the UK and most other countries due to its potential for demonstrating social responsibility to society. The United Nations has developed a sustainability agenda called the Sustainable Development Goals (SDGs), which connects the work environment and the planet with more responsibility. Hassani et al. (2021) demonstrated the connection between big data and the sustainable development of firms using the 17 SDGs of the UN.

The researcher proposed the idea of sustainable branding, which involves adopting and implementing sustainability through big data and business analytics in the internal and external environment of business. This idea could have a positive impact on users of the environment and is important for promoting sustainability in the business environment. The resource-based theory was used to identify Key Performance Indicators (KPIs) for achieving maximum operational efficiency through a framework designed to overcome challenges in the business environment (Alvarez & Barney, 2017). The H2H theory was then employed to implement the idea efficiently, generating results from users of big data and business analytics (Kotler et al., 2020). The researcher urged the UK market research industry and other related businesses to rebrand as part of their marketing efforts to embrace a globally accepted sustainability project, supported

by research and adopted by practitioners, that utilizes big data and business analytics to achieve operational efficiency and create impact. The study focused on connecting marketing effort to sustainability implementation in the business environment, with big data and business analytics chosen as the prime technologies for effective implementation. This created a conceptual coordination between technology and theoretical concepts to achieve operational efficiency, the primary goal of the study, which would be useful for researchers and practitioners both now and in the future.

1.2 Background

In the era of sustainability marketing, companies tried to promote their brand based on social responsibility, and sustainable branding played a significant role in co-creating these values into organizations (Lehner & Halliday, 2014). The literature in this field was rich in theoretical and empirical contributions while addressing sustainable branding with technology but was limited in various industry sectors. In the digital era, a complex approach was needed to get the best results in strategizing brands that required Artificial intelligence, which purely gave results based on innovative management (Delanoy & Kasztelnik, 2020).

McCarthy coined the term "Artificial Intelligence" in 1956, referring to it as the "science and engineering of making intelligent machines" (Rajaraman, 2014). Branding strategies formulated with statistical data formed the Brand analytics, which was the present and future of every business (Bradlow et al., 2017). However, more research was required in the field of business strategies to understand the impact of AI through big data and business analytics (Pappas et al., 2018).

Skimming through different databases for qualitative studies that showed the impact of sustainable branding using big data analytics based on the industry background of the market research sector provided no results, nor did it give any literature background on the market research industry specifically. According to ESOMAR's annual Global Market Research Report 2022, the UK was the second-largest market research industry after the USA, and there was higher potential for growth due to the need for high-quality insights obtained directly from consumers of brands (Mytton et al., 2021). The route to a brand strategy with big data and artificial intelligence helped companies improve a larger list of attributes for the company by increasing their ability for sustainability (Sivarajah et al., 2020).

Organizational performance through knowledge and innovations helped to increase share in the market, valuation, leverage among their partners, access for vertical integration, attracting and retaining employees, focusing on vision, and micro-mobilizing people for focusing on vision (Garcia-Morales et al., 2018). If you could not measure it or understand the reason for measuring it, you could not manage it. This was the case for most companies in the market research sector who underperformed without considering the contemporary aspects of the sustainability-focused new normal (van Riel et al., 2021).

The importance of big data and business analytics had been researched by several researchers and used by practitioners for enhancing their operational performance by adopting them into their business environment (Dubey et al., 2020). Challenges in identifying and implementing sustainability activities were studied precisely to identify a competitive edge, economic, and positive environmental impact (El-Kassar & Singh, 2019).

Many studies focused on sustainability, but few used branding strategies for promoting sustainability in the internal and external business environment by implementing big data and business analytics using the sustainability goals of the UN (Pimonenko et al., 2020). The plan was to pave the way for researchers and practitioners in the market research industry to promote a globally unified platform of sustainability using branding and big data analytics with the UN Agenda 2030.

The researcher focused on establishing this standard with all users of big data analytics technology so that the gap between big and small players in the industry would be reduced, thereby increasing revenue by getting more businesses in the least possible lead time needed to implement such a big ideology of sustainability using a strategic approach.

1.3 Context

Scholars in the field of marketing had little evidence of conceptualizing markets based on big data, marketing analytics, and attributes of the marketing mix (Cao et al., 2021). Therefore, conceptualizing a brand strategy for the world of big data and analytics was highly relevant for practitioners and scholars in the field of market research to think outside the box away from the generic concept of marketing where only buyers and sellers were the main attributes (Pridmore & Zwick, 2011). The need for using insights from the viewpoint of Business-to-Business (B2B) and the new Human-to-Human (H2H) aspect routed these gathered data to make this qualitative study more relevant for both academic researchers and practitioners in the market research industry to promote sustainable development and survival in this era of sustainable digital business practices.

The B2B concept was explored through the resource-based view theory to explore the internal and external environment of businesses for identifying performance indicators that could help in operational efficiency through the indicators of sustainability (Chatterjee et al., 2021). Moreover, the sustainable development goals of UN were globally gaining attention in the business world, which used technology as a part of its business and for sustainability measures. The need for a marketing effort in the internal and external business environment for promoting sustainability in the data-driven industry was highlighted to study the impact.

This study aimed to provide market research industry researchers and educators with a literary pathway to understand the significance of mapping sustainable brand strategies for present and future businesses within the context of data-driven companies that utilize big data and business analytics. To achieve this goal, research questions were formulated and developed. The research combined core areas of sustainability using branding strategies with the use of big data and business analytics for present and future businesses employing technology. The chosen industry was at the centre of all market research and insights work worldwide, namely, the Market research industry. The study location was major countries that were home to leading market research companies, as well as other associated countries reliant on outsourcing jobs related to technology associated with big data and analytics used in the market research industry.

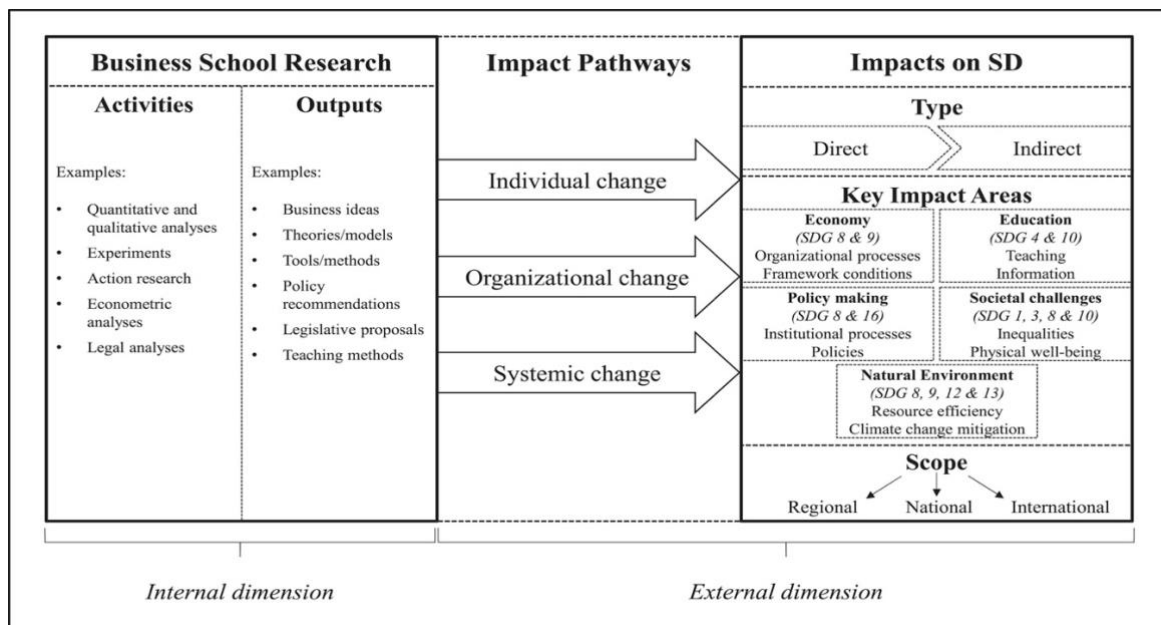
This was the first time that an impact study on the effect of sustainability efforts using branding strategies was used to collaborate with the Sustainable Development Goals (SDG) of UN Agenda 2030 in the UK market research industry. The study also aimed to connect the need for using big data and business analytics to align with global sustainability through various theories for gaining insights. This research formulated a theoretical framework for data-driven

companies for technological innovation through globally accepted sustainable standards in their business environment and thereby achieved efficiency through branding.

1.4 Research Rationale

The rationale identified a research problem or gap in knowledge, articulated research questions or objectives, and provided a justification for why the research was important to practitioners, scholars, or society at large. The rationale also considered the theoretical and practical implications of the study and explained how the research would contribute to the existing literature and/or practice (Rojon & Saunders, 2012). Ultimately, a strong research rationale persuaded readers that the proposed research was necessary, relevant, and feasible. This was achieved through impact studies, as exemplified in Figure 1.1, which inspired this research on the use of SDGs to drive impact.

Figure 1.1: Inspiration for Impact study using Sustainable development Goals



Adopted from: *Toward a sustainability assessment framework of research impacts: Contributions of a business school* (Findler, 2021)

Sustainability has been a topic of significant interest in recent times, with many studies focusing on economic and environmental aspects in developing regions (Tsai et al., 2021). However, despite the growing awareness of the importance of sustainability in data-driven industries such as market research, there were few marketing efforts to implement it in the internal environment of the business. Given the need for sustainability from both a business and human perspective, this research aimed to explore the idea of branding and sustainability for data-driven companies that utilized big data and business analytics as a marketing effort.

Most researchers limited their studies to academic or business aspects due to limitations in data collection and work profiles (Hunt et al., 1984). However, the author of this research worked closely with the Market Research Society of the UK and is a member of its sustainability council, which took numerous efforts to promote sustainability in the market research industry. Despite these efforts, there was a lack of academic literature on marketing efforts to implement sustainability in the internal and external environment of data-driven businesses, particularly in the market research industry.

The UK government had taken significant steps to promote sustainable development goals (SDGs) and had documented its actions in accord with the 17 SDGs, which were globally accepted by 193 countries worldwide and could be accessed by anyone visiting the government website (Implementing the Sustainable Development Goals, gov.uk, 2021). Promoting these goals could benefit businesses and society as a whole by providing efficiency in all aspects of the business. These formulated frameworks could be used at both academic and practitioner levels.

Conducting a contemporary qualitative study using big data analytics drew attention from the insights industry, which had the potential to promote the study to researchers in academia and practitioners of branding innovation through sustainability (Cordova & Celone, 2019). With the increasing global attention to sustainability, particularly after the pandemic where people were more concerned about climate change (Maarroof, 2015), sustainable branding in the internal and external environment of businesses could be a game-changer.

1.5 Problem Statement and Its Significance

In this research, the researcher clearly stated the problem statement and its significance into four inter-related segments, which provided insights for academicians and practitioners. The problem statement identified an issue or challenge related to business management, organizational behaviour, or strategy that required investigation and resolution, as well as demonstrated why it was important and relevant to the field of study, as well as to practitioners and stakeholders (Newman & Covrig, 2013).

Problem statement 1: To address the challenge of integrating sustainability effectively into business strategies amid the growing interest in sustainability, it is essential to investigate how sustainable branding and big data analytics can offer the necessary support.

Problem statement 2: To ensure the successful positioning of a sustainable branding strategy that resonates with consumers and builds brand equity, it is crucial to address the challenges related to identifying and defining the key attributes for effective positioning of sustainable branding.

Problem statement 3: To leverage the substantial potential of big data and analytics for insights into sustainable branding, it is vital to bridge the gap in qualitative understanding of consumer attitudes and behaviours. This is essential for overcoming the barrier to gaining a competitive edge.

Problem statement 4: To meet the growing demand for integrating sustainability into data-driven decision-making, it is essential to articulate a comprehensive theoretical framework for sustainable branding. This framework must align seamlessly with the context of data-driven companies, providing clear guidance for integration.

The market research industry had transformed from data providers to insight vendors, capable of providing actionable guidance in promoting business opportunities (Diaz Ruiz, 2021). Despite a growing interest in sustainability, many businesses still struggled to effectively incorporate sustainable branding into their strategy. It was not yet clear how big data and business analytics could help support inviting sustainability into the supply chain using branding strategies. This transformation had been achieved only by the major players in the industry (Market Research Society, 2023).

However, there was a need to connect academics and practitioners in the market research industry to create a general standard and promote sustainability. Creating a sustainable branding strategy that resonated with consumers and built brand equity was essential for businesses operating in the market research industry. However, identifying the key attributes for successful brand positioning using sustainability remained a challenge (Koo & Loken, 2022). Many methods used by practitioners were developed by academics in market research, such as cluster analysis and factor analysis, which were used as advanced software versions. The main aim of academics was to develop such methods so that practitioners could

be more specific with principles and professional conduct (Sarstedt & Mooi, 2014).

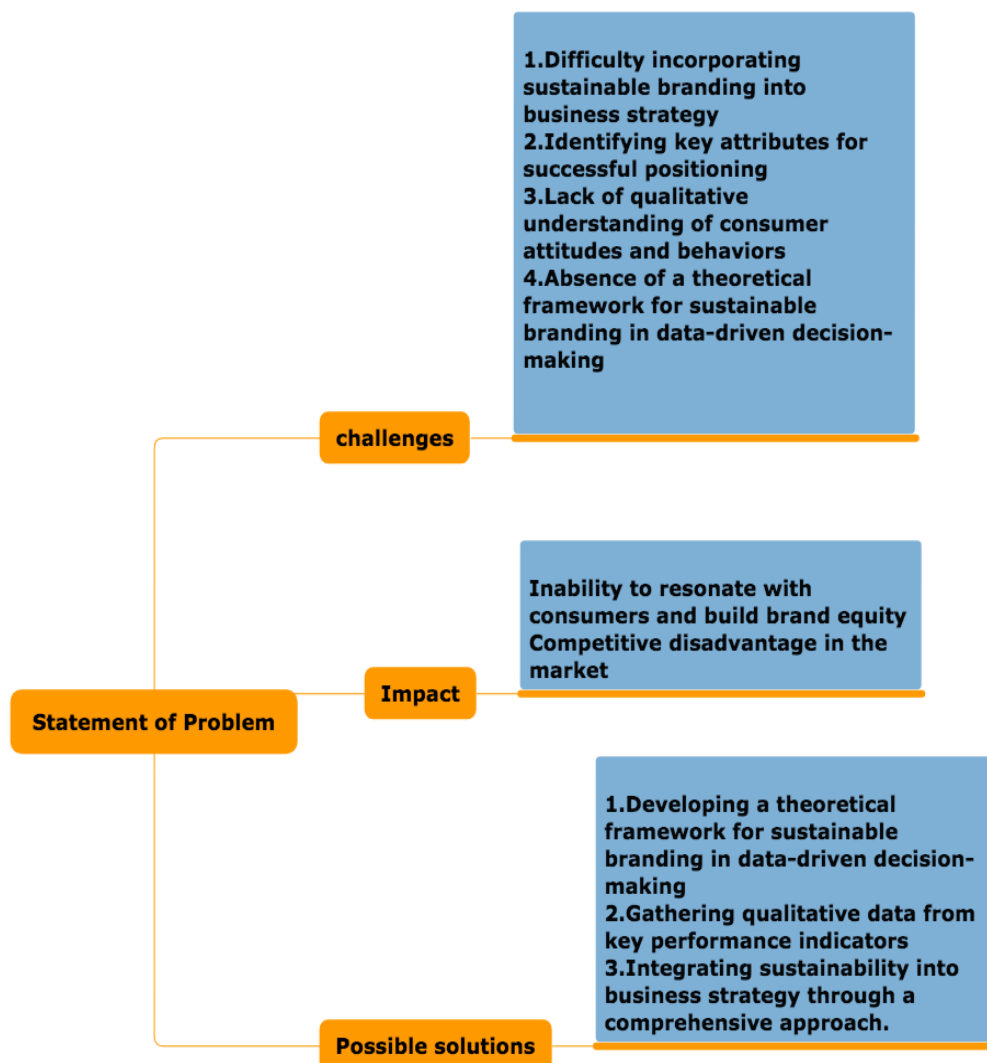
While big data and analytics had the potential to provide valuable insights for sustainable branding, many companies lacked a qualitative understanding of consumer attitudes and behaviours. This gap existed because academic researchers had limited exposure to real-world practitioner experience in the market research industry (Alshare & Sewailem, 2018). To establish a universal standard in the industry, it was necessary to adopt globally accepted concepts such as sustainability and employ technological innovations like big data analytics to gain a competitive advantage (Lafuente-Lechuga et al., 2021). However, introducing these concepts and technologies may have faced internal and external resistance within the work environment and customer base (Alshare & Sewailem, 2018), making it crucial to create brand recognition in the business world and develop values that aligned with international organizations like the UN.

The idea of connecting the sustainability concept of UN Agenda 2030 and big data analytics was developed through Michael Zürn's theory of global governance (Keohane, 2021). Sustainable branding through marketing efforts was expected to promote idea implementation with ease and address the gap between major players and smaller businesses, which was a significant challenge identified by professional academicians in the industry (Dimitrova, 2020).

As more companies embraced data-driven decision-making, it was important to develop a theoretical framework for sustainable branding that could be applied in this context. However, such a framework had yet to be fully articulated, leaving many businesses without clear guidance on how to integrate sustainability into their data-driven strategies (Yu et al., 2021). A scholar-practitioner approach is

highly demanded and accepted in the market research industry, unlike any other business environment. This approach could have helped solve the gap and increased the total revenue of the industry, thereby rejuvenating it with respect to global sustainability initiatives. The brief plan of the statement of problem is presented in Figure 1.2.

Figure 1.2:Statement of the Problem



Source: Developed based on the research questions to be investigated (Author,2023)

1.5.1. Academic Significance

This research holds academic significance as it contributes to the sustainable development of academic literature and fosters future research and practical implementations (Newman & Covrig, 2013). By developing a conceptual framework for organizational sustainability and proposing an implementation strategy centred on sustainable branding, aligned with globally recognized objectives like the UN Agenda 2030, this study addresses a notable gap in the existing literature.

One crucial aspect of academic significance lies in its relevance to multiple academic domains, including technology and management, with a particular focus on technological innovation and sustainability (Hassani et al., 2021). In an era marked by the pervasive use of advanced technologies like big data and data analytics in the market research industry, this research offers valuable insights. It serves as a valuable resource for researchers exploring the intersection of technology and sustainability (Currie et al., 2020).

Moreover, this study adopts a qualitative approach, providing a detailed understanding of sustainability issues that needs a multidisciplinary approach—a perspective often underrepresented in a predominantly quantitative landscape and has potential to be presented using the multidiscipline using qualitative perspective (Pepple et al., 2022). This qualitative approach is particularly important for capturing nuanced insights and ensuring that policymakers remain engaged in the subject matter. In a field where the majority of sustainability studies related to big data and business analytics are quantitative, this qualitative research stands out. The research also opens doors for future scholars to explore new dimensions within the dynamic market research industry. Given the

industry's rapid evolution driven by branding and technology (Mytton et al., 2021), the research offers possibilities for in-depth exploration.

In summary, this research serves as a valuable resource for academics, practitioners, and policymakers interested in sustainable development, organizational sustainability, and the integration of big data and business analytics within the market research industry. Additionally, it introduces the H2H theory by Philip Kotler (2021) into the UK market research industry's academic literature, potentially promoting the adoption of the H2H concept among technology architects developing algorithms for business analytics.

1.5.2. Organisational Significance

The core objective of this practitioner-level research is to identify a framework capable of advancing the global sustainability concept alongside the technologies employed within the market research industry. In the ever-evolving insights industry, which continuously generates new knowledge for the business world, practitioners eagerly seek fresh insights to gain a competitive edge (Chatterjee et al., 2021). While existing literature often focuses on either implementation or innovation, this research takes a distinct approach.

By harnessing big data and business analytics innovation within the context of globally recognized sustainability initiatives, this research provides a highly significant path forward. It leverages sustainable branding as a means of effective promotion and implementation, aligning with the UN's sustainability initiatives, such as those that garnered attention from the UK government post-pandemic which is clearly mentioned in the UK government website under the section 'Implementing the Sustainable Development Goals' (gov.uk, 2021).

This approach is of paramount importance to the market research industry, offering the potential to attract a broader client base on a global scale and expand market size. Moreover, it fully utilizes the concept of sustainable branding for effective implementation, benefitting even those practitioners contemplating business rebranding.

In the post-pandemic landscape, where sustainability and global initiatives hold increased prominence, this research is poised to attract more researchers and practitioners from diverse disciplines. It offers them an opportunity to find their place within the market research industry, either independently or by collaborating with established players.

In conclusion, the organizational significance of this research lies in its potential to reshape and elevate the market research industry. It aligns with global sustainability goals, leverages innovative technologies, and introduces a fresh approach to sustainable branding. This approach not only attracts a broader client base but also fosters collaboration among diverse stakeholders in pursuit of a sustainable future.

1.6 Research Questions

1. How do big data and business analytics help to build sustainability through sustainable branding?
2. What are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?
3. How can qualitative study in sustainable branding provide insights for gaining a competitive edge through big data and analytics?
4. How is a theoretical framework formulated using sustainable branding strategy in data-driven companies that use big data and analytics?

1.7 Aim and Objectives of The Study

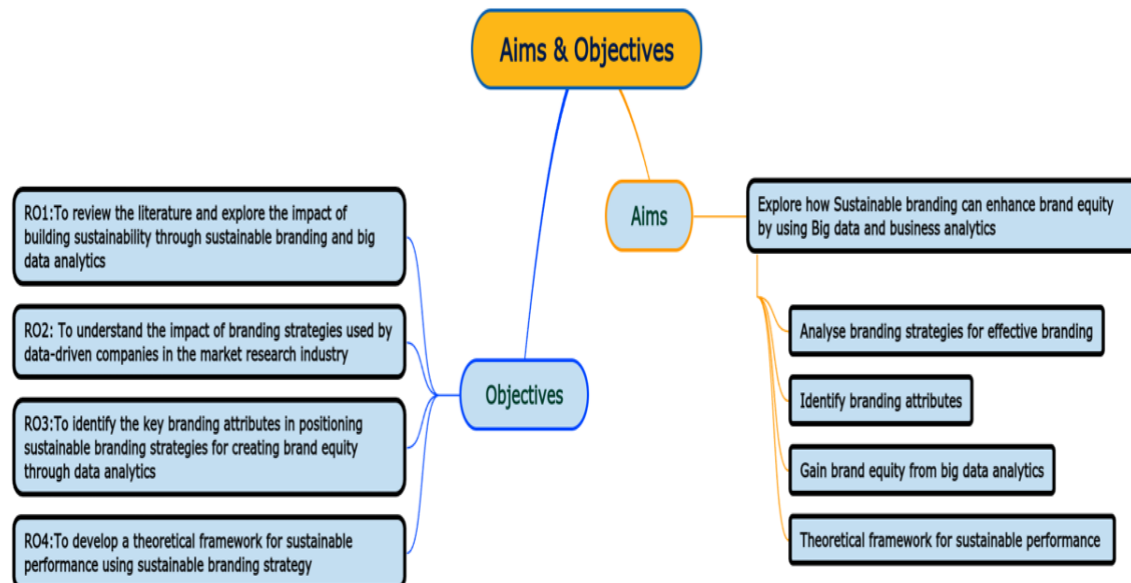


Figure 1.3: Aims & Objectives of the study
(source: Author, 2023)

Aim

The research aimed to explore how sustainable branding and big data analytics could enhance brand equity and sustainability in the market research industry. The literature was reviewed, branding strategies of data-driven companies were analysed, key attributes for sustainable positioning were identified, qualitative research methods were used to investigate competitive advantage, and a theoretical framework was created to demonstrate how sustainable branding could improve performance in data-driven companies using big data and analytics.

Research Objectives

The objectives of the research were as follows:

RO 1: To review the literature and explore the impact of building sustainability through sustainable branding and big data analytics.

RO 2: To understand the impact of branding strategies used by data-driven companies in the market research industry.

RO 3: To identify the key brand attributes in positioning sustainable branding strategy for creating brand equity through data analytics.

RO 4: To develop a theoretical framework for sustainable performance using sustainable branding strategy in the market research industry.

Qualitative data analysis was used to project the attributes of knowledge-based sub-branding strategy in B2B businesses for better brand positioning (Koo & Loken, 2022). These objectives aimed to identify and quantify experiences to strategize brands for improved market positioning and provide literary contributions to scholars and entrepreneurs in the market research industry. Given that sustainability had become the new norm in business environments (Ward & Steckler, 2022), these objectives guided the research in engaging the internal and external environment of the market research business for sustainability, utilizing big data and artificial intelligence. Figure 1.3 shows a comprehensive outline of the research's aims and objectives.

1.8 Geographical Location of The Study Area



Figure 1.4.: Location of the Study
(Geographical spread Mapped by Author,2023)

This study focused on the market research industry in key geographical locations worldwide, as shown in Figure 1.4. London served as the primary hub for market research companies in the UK, enabling efficient data collection, even during the pandemic when the author was based in the city. The author also had field access to India to network and finalize participants scattered across the world through the employees in multinational companies that had development centres in India.

The inclusion of diverse countries such as the United States, India, China, the United Kingdom, the Netherlands, Sweden, Japan, and the United Arab Emirates in this research study holds paramount importance. It extends the study's relevance by encompassing regions that are not only major suppliers of market research data worldwide but also represent distinct cultural, economic, and technological contexts. Examining these countries provides invaluable insights

into the multifaceted realm of sustainable branding and its intricate relationship with big data analytics. By doing so, the study gains a global perspective, ensuring its applicability transcends regional boundaries. Moreover, the exploration of brand equity, driven by sustainability, and the understanding of subjective experiences in different cultural settings, enriches the research by offering a comprehensive view of how sustainable branding strategies resonate with diverse audiences. This broadens the scope of the study, making it a significant contribution to the field of sustainable marketing and positioning it as a valuable resource for businesses and researchers worldwide seeking to navigate the evolving landscape of sustainable branding.

According to ESOMAR's annual Global Market Research Report 2022, The following country wise section clearly identifies why this research study focus on a global perspective by choosing these countries and not on a region-specific view in regard to the research objectives which we discussed earlier:

United States (USA): With the largest market research industry globally, the USA offers insights into advanced sustainable branding practices. This aligns with Research Objective 1, which focuses on understanding the impact of sustainable branding and big data analytics on sustainability.

India: India's rapid growth and tech-driven market research sector provide valuable perspectives for Research Objective 3, which seeks to explore the qualitative aspects of sustainable branding and its link to big data analytics.

China: As one of the world's largest markets, China's influence on sustainable branding strategies is undeniable. It contributes to a global perspective on Research Objective 2, examining branding strategies used by data-driven companies in the industry.

United Kingdom (UK): The UK, with its strong commitment to sustainability, serves as an ideal base for research that aligns with global sustainability goals (Research Objective 4). London's status as a market research hub supports this research's exploration of key brand attributes for positioning sustainable branding.

Netherlands: Known for its research methodologies and data analytics expertise, the Netherlands complements Research Objective 2 by providing insights into branding strategies and their impact.

Sweden: Sweden's focus on sustainability aligns with Research Objective 4, contributing to the development of a theoretical framework for sustainable branding.

Japan: Renowned for technological innovation, Japan's role in Research Objective 1 emphasizes understanding the impact of big data analytics on sustainability.

United Arab Emirates (UAE): As a hub for international business, the UAE offers insights into global market research dynamics, supporting Research Objective 3 by exploring qualitative aspects of sustainable branding.

According to Market research society report 2023, The UK market research industry initially originated in London and has since expanded across the country, capitalizing on research and technology innovation. Over 50% of export services were from small to medium-sized enterprises (SMEs) in this industry, with more than 70% of market research companies in the UK foreign-owned and based in the country (Mourougane et al., 2021). The UK's commitment to the United

Nations Agenda 2030 and Sustainable Development Goals, as well as its support for global sustainability, made it an ideal location for this research to be based. The UK was the first country to produce a voluntary national review on behalf of the United Nations, demonstrating its efforts to support human well-being ("Implementing the Sustainable Development Goals," gov.uk, 2021). Furthermore, the Research live industry report, 2019 states that UK had a unique focus on importing and exporting high-quality market research services.

1.9. Research Contribution

The research aimed to promote a sustainability revolution in the market research industry by developing strategic approaches that embed sustainability in both internal and external environments for companies using big data and business analytics. The study made a significant contribution to the existing literature by addressing the gap in promoting sustainability in data-driven companies (Van Holt & Whelan, 2021). The research integrated practitioners from the industry to conduct expert interviews and utilized knowledge gained from academia to create practitioners who could promote sustainability in their workplace. This was a branding effort for businesses to gain a competitive edge. Furthermore, the research highlighted the potential of professional academic researchers in advancing towards practice-led research for future directions and attracting funding opportunities (Böckel et al., 2021).

1.9.1 Contribution to Scholars

Manjari's (2021) work encouraged future scholars to think strategically and diversify their research in sustainability to discover new truths, expand their academic knowledge, and explore sustainable goals. Huelves and Marco (2021)

highlighted the potential of practice-led research in promoting innovation and knowledge, particularly through the use of technologies such as big data and business analytics. The conceptual framework utilized in this study broadened knowledge within the business design of an organization. Moreover, this research emphasized the advantage of academic scholars in the market research industry, where they created new knowledge, and businesses utilized it for competitive advantage. The marketing approach applied in this study can assist future scholars in enhancing employability in their core research areas and comprehending the applicability of research ideas, which suggest strategies to enrich creative and constructive theory building (Zahra, 2007).

1.9.2 Contribution to Practitioners

The COVID-19 pandemic resulted in a cautious approach towards allocating research and development budgets for sustainability. This study contributed to the practitioners by developing a conceptual framework that integrated globally accepted sustainability goals into the internal and external environment of businesses, promoting Agenda 2030 through evidence-based policymaking (Bonsu et al., 2020). Despite the high costs associated with this type of research and the ethical challenges of gaining insights from competitors without bias, the integration of Agenda 2030 into 17 goals and 169 indicators helped practitioners gain more control over using big data analytics to achieve desired sustainability goals with minimal lead time (Lafuente-Lechuga et al., 2021).

This research also demonstrated a pathway for achieving sustainability, highlighting the importance of developing sustainable smart cities that captured large amounts of data and promoted sustainable goals for economic, social, and environmental benefits (Bibri & Krogstie, 2020). Practitioners in the market research industry, in partnership with multiple sectors, had high potential in

developing technological algorithms to promote sustainable branding in the internal and external environment of businesses, ultimately enhancing organizational performance.

This study's contribution to practitioners not only advocated for sustainability but also provided a framework for its implementation. It could assist future researchers in understanding the role of evidence-based policymaking in promoting sustainability and its impact on the market research industry. The research also encouraged practitioners to explore the ethical challenges involved in conducting sustainability research in an industrial setup and develop strategies to mitigate them.

1.10. Operational definition of key words

Sustainable branding was defined as the strategic approach of building and promoting a brand that considers social, environmental, and economic sustainability while creating value for the business (author, 2023). The definition highlights the importance of prioritizing long-term growth without compromising on the well-being of people and the planet.

Big data was described as large and complex datasets that can be analysed to reveal patterns, trends, and associations, often using computer algorithms and machine learning techniques (Kitchin, 2014). The definition highlights the potential of big data in gaining insights that can assist in making informed business decisions.

Business analytics was defined as the use of statistical and computational methods to analyse business data and make informed decisions (Ajah & Nweke,

2019). The definition emphasizes the importance of using data-driven insights in strategic decision-making.

The market research industry was described as the field of business that involves collecting and analysing data on consumer behaviour, market trends, and other factors that can affect business decisions (Mytton et al., 2021). The definition highlights the role of market research in providing valuable insights for businesses.

Sustainable development goals (SDGs) were described as a set of 17 global goals adopted by the United Nations in 2015 to promote sustainable development, including poverty reduction, environmental protection, and social welfare (Rochelle J. March 2020). The definition emphasizes the significance of the SDGs in promoting sustainable practices in various sectors.

1.11. Structure of the research

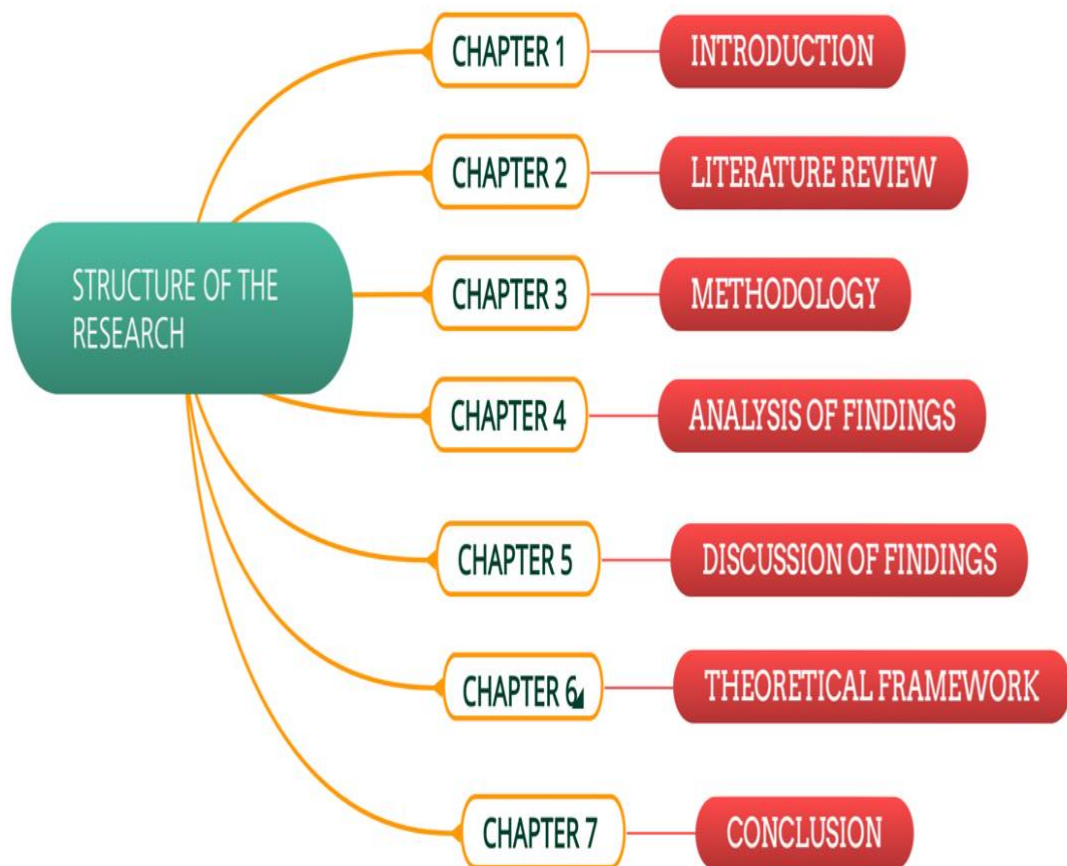


Figure 1.5: Structure of the Research

Created by Author (2023)

1.12 Section summary

This section serves as the foundational chapter of the thesis, offering a comprehensive introduction to the research topic. It begins by providing essential background information on the subject matter, setting the stage for the subsequent discussions. The context of the research is elaborated upon, underscoring its relevance and significance within the broader academic and organizational landscape. The chapter proceeds to establish a strong rationale for the research, emphasizing the necessity of the study to address specific knowledge gaps and practical challenges. A clear and focused problem statement is presented, encapsulating the central issue addressed in the thesis.

The academic and organizational significance of this problem is articulated, highlighting its broader implications and potential contributions to the field. Furthermore, the chapter lays out the guiding framework for the study by presenting well-defined research questions, which will direct the investigation throughout the thesis. The overall aim and specific objectives of the research are outlined, providing a roadmap for the subsequent chapters.

Geographical considerations are introduced, with the identification of the study area, and the potential impact of the research on both scholarly and practitioner communities is discussed. Key terminology utilized in the study is operationalized to ensure clarity and consistency, and the overall structure of the thesis is visually represented for reader convenience. In conclusion, Chapter 1 offers a holistic overview of the thesis content and objectives, preparing the reader for the subsequent chapters' in-depth explorations. It effectively establishes the research's context, significance, and purpose, laying a solid foundation for the ensuing discussions and analyses. Any changes in the problem statement within this chapter should be approached carefully to ensure continued alignment with the research's overall goals and objectives.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

The literature on sustainability, branding, big data, and business analytics had already been extensively researched by scholars and practitioners. However, there was a significant gap in literature regarding the idea of the new concept of sustainable branding using technology, despite its widespread use as a practical application (Hambali et al., 2020). This gap was particularly relevant given the current focus on climate change, green marketing, and sustainable environments. The market research industry was an area that dealt with a vast amount of data associated with marketing, branding, and customer feedback (Diaz Ruiz, 2021), making it an ideal industry to study the impact of sustainable branding using big data and business analytics.

This study aimed to fill the gap in literature by bringing together core areas of sustainability, branding strategies, big data analytics, and business analytics for scholars and practitioners working in present and future businesses. This research was unique as it combined sustainability and big data analytics to study their impact on a particular industry, which was the market research industry. Therefore, reviewing a vast amount of literature from different literary backgrounds on relevant streams was crucial for this maiden approach. This section focused on concepts and theories that strategically generated key performance indicators (KPIs) for competitive advantage and attained organized results for an impact study. This approach could lead to knowledge exchange between academic and practitioner backgrounds, respectively.

In summary, this literature review section provided a comprehensive analysis of the literature available on the impact of sustainable branding using big data and business analytics in the market research industry. It aimed to bridge the gap in literature by bringing together the core areas of sustainability, branding strategies, big data analytics, and business analytics. The results of this study could be useful for scholars and practitioners working in the market research industry and beyond, providing insights into how sustainability measures could impact businesses and the environment around us. The literature review process is shown in figure 2.1 which was sourced from González-Pérez & Ramírez-Montoya (2022).

2.2. Systematic Literature Review Process

A systematic literature review is an essential component of this research, providing a comprehensive synthesis of existing knowledge and insights relevant to the study's objectives. In this section, we outline the systematic literature review process employed by González-Pérez & Ramírez-Montoya (2022) to investigate the research questions and gather relevant insights regarding sustainable branding, big data, and business analytics in the context of the market research industry.



Figure 2.1: Systematic literature review process

Source: (González-Pérez & Ramírez-Montoya, 2022)

2.2.1. Introduction

The systematic literature review commences with a comprehensive introduction that sets the stage for the systematic exploration of relevant literature. This introduction provides an overview of the key themes under investigation, namely sustainable branding, big data, and business analytics within the context of the market research industry.

2.2.2 Research Questions

In the pursuit of answers to these critical research questions, we draw upon the work of Gonzales & Perse Montoya (2022), which provides valuable insights into the intersections of sustainable branding, big data, and business analytics within the context of the market research industry from a qualitative perspective. We formulated a set of research questions to guide the selection of relevant studies and the extraction of pertinent information.

- How do big data and business analytics help build sustainability through sustainable branding?
- What are the attributes for positioning a sustainable branding strategy to create brand equity in the market research industry?
- How can qualitative study in sustainable branding provide insights for gaining a competitive edge through big data and analytics?
- How is a theoretical framework formulated using a sustainable branding strategy in data-driven companies that use big data and analytics?

2.2.3. Search Process

The search process followed recognized guidelines (Higgins & Green, 2006) to identify relevant literature sources. A systematic and comprehensive search was conducted across various academic databases and digital libraries. The search strategy involved the use of relevant keywords and controlled vocabulary terms related to sustainable branding, big data, business analytics, and the market research industry.

ProQuest: ProQuest offers access to a diverse range of academic materials, including dissertations, theses, and scholarly articles. It was particularly useful for recent research on sustainable branding, big data, and business analytics in the market research industry. It was the official source offered by the university for doctoral students.

EBSCOhost: EBSCOhost is a multidisciplinary database that facilitated the search for literature related to sustainable branding, big data, business analytics, and the market research industry.

Google Scholar: Google Scholar is a freely accessible search engine for scholarly articles, theses, books, and conference papers. It was the main source used to supplement search downloads and identify additional relevant sources.

British Library Catalogues: The catalogues of British libraries were explored regular between 7-21 days to access print and electronic resources available within institutional collections, including materials specific to the UK's contributions to sustainability and related brands. After the pandemic, the library was less busy that the researcher got access with librarians and the special interest groups of sustainability.

JSTOR: JSTOR is a digital library widely recognized for its historical and foundational literature on sustainability, branding, and technology related to big data and business analytics.

PubMed: PubMed is a trusted resource for accessing scholarly articles in the fields of medicine, health sciences, and related subjects, making it valuable for studies on the impact of sustainability in the market research industry. The NHS was the biggest client to the UK Market research industry during the time of conducting the research.

IEEE Xplore: IEEE Xplore is a comprehensive research database specializing in engineering, technology, and computer science, making it instrumental in locating literature on big data analytics and its applications.

These databases and digital libraries were chosen due to their prominence and accessibility in the academic community. The combination of these resources ensured a comprehensive and rigorous search process, aligning with established guidelines (Higgins & Green, 2006) for systematic literature reviews.

2.2.4. Inclusion and Extraction Criteria

To ensure the selection of literature that directly addressed our research questions and objectives, the review process meticulously established inclusion and exclusion criteria of Higgins & Green (2006). These criteria were strategically designed to align with the specific focus of our study. The following expanded explanation details how our inclusion and exclusion criteria were shaped by our research questions:

An example of Research Question 1 is used to illustrate:

Research Question 1: How do big data and business analytics help build sustainability through sustainable branding?

To investigate the role of big data and business analytics in building sustainability through sustainable branding in the market research industry, we conducted a systematic search for relevant literature sources. The search process followed recognized guidelines (Higgins & Green, 2006) and aimed to identify studies that directly addressed this research question.

Inclusion Criteria:

- **Relevance to Research Question 1:** Selected studies must directly address the role of big data and business analytics in building sustainability through sustainable branding in the market research industry.
- **Publication Type:** Only peer-reviewed journal articles, Industry reports and conference proceedings were included to maintain a high standard of scholarly rigor.
- **Industry Relevance:** Included studies should be relevant to the market research industry to ensure that the literature directly addresses the context and dynamics of the industry.
- **Scope of Topics:** Studies included should explore the interplay between sustainable branding, big data, and business analytics within the context of the market research industry.
- **Publication Recency:** We considered studies published within the last 10 years (2013-2023) to ensure the relevance and currency of the literature. This timeframe balances recent developments with foundational research.

Exclusion Criteria:

- Irrelevance to Research Question 1: Studies that did not directly address the role of big data and business analytics in building sustainability through sustainable branding in the market research industry were excluded.
- Non-peer-reviewed sources: Any non-peer-reviewed sources, such as non-academic websites or reports, were excluded to maintain scholarly rigor.
- Lack of industry relevance: Studies that were not relevant to the market research industry were excluded to maintain the focus on the specific context of the study.
- Topics outside the scope: Studies that explored topics unrelated to sustainable branding, big data, and business analytics within the market research industry were excluded.
- Outdated or non-current publications: Studies published before 2013 were excluded to prioritize current research but few exclusions were made so that the relevance of a topic is not lost.

After applying these inclusion and exclusion criteria with a qualitative emphasis for Research Question 1, our systematic search yielded a total of 43 relevant qualitative studies that directly addressed the role of big data and business analytics in building sustainability through sustainable branding in the market research industry. These studies encompass a range of qualitative research methods, such as interviews, content analysis, and thematic analysis, providing rich qualitative insights.

By applying these inclusion and exclusion criteria, our systematic review process was fine-tuned to filter and select literature that best aligned with our research questions and objectives. This approach ensured that the studies we included were not only academically rigorous but also directly contributed to the insights and findings relevant to our study's focus.

2.2.5. Data Selection and Extraction Process

The systematic literature review adopted a rigorous data selection and extraction methodology, drawing inspiration from the guidelines established by York University's Centre for Reviews and Dissemination in 2009. This meticulous process encompassed several key steps, including the screening of identified studies, the extraction of pertinent data points, and the systematic cataloguing of this information for subsequent in-depth analysis. The data extraction procedure encompassed a wide array of elements, such as essential findings, research methodologies employed, empirical evidence presented, and the theoretical frameworks underpinning the selected studies.

2.2.6. Data Synthesis

The systematic review process culminated in the synthesis of data and the presentation of results. Data synthesis involved identifying common themes, patterns, and trends within the selected literature. To enhance clarity, results were presented using data visualizations, such as thematic maps, diagrams, and charts, drawing upon established best practices (Higgins & Green, 2006). This process facilitated a structured and comprehensive exploration of existing knowledge in the field. It allowed for a rigorous analysis of the interrelationships between sustainable branding, big data, business analytics, and their significance within the dynamic market research industry. The systematic approach ensured the inclusion of high-quality, relevant literature sources and provided a foundation for the subsequent sections of their research.

2.3. Sustainable Branding as a Brand Strategy

Strategies that used sustainability and branding gained significant traction in recent years due to the increasing awareness of environmental and social issues (Kumar & Christodouloupoulou, 2014). Sustainable branding was considered a branding strategy that aimed to create a positive impact on society and the environment while also generating profits for the business (Hambali et al., 2020).

At its core, sustainable branding involved creating a brand identity that aligned with sustainability values and practices. Previous studies stated sustainable branding as a new buzzword (Meffert et al., 2010a). This included using environmentally friendly materials, reducing waste, and promoting social responsibility. By doing so, businesses could attract consumers who prioritize sustainability and were willing to pay a premium for products and services that aligned with their values (Singh, 2017).

Sustainable branding gained importance in the present world due to its inter-relationships between companies, customers, and government in protecting and maintaining a sustainable environment (Foroudi & Palazzo, 2021). Practitioners in branding were more focused on sustainability (Meffert et al., 2010). Sustainable branding was a new weapon of marketing departments to ensure that their companies had a competitive edge through branding (Štreimikienė & Ahmed, 2021).

The triple bottom line proposed by Elkington in 1999 influenced businesses towards social and environmental aspects, leading to long-term sustainability (Štreimikienė & Ahmed, 2021). Sustainable branding became more familiar with the evolution of sustainability in business practices as part of corporate social responsibility (Alcaide et al., 2019). Effective communication was essential for

implementing sustainability and brand value expectations of stakeholders (Alcaide et al., 2019).

Sustainable branding aimed to counter the difficulty of communicating the competitive advantage of sustainability in firms (Alcaide et al., 2019). A green sustainability study revealed that familiarity with the word sustainability was highest among those under 35 years old, indicating their influence on future companies promoting or ignoring sustainability (Market Research Society, 2015). Sustainable branding was an ideal process for future marketing and branding (Market Research Society, 2015).

Modern corporations were proactively working on their corporate social responsibility to promote their sustainability activities and overcome challenges (Biswas et al., 2018). To implement sustainable branding effectively, businesses had to adopt specific branding strategies that promoted sustainability (Meffert et al., 2010b). These could include incorporating sustainability into the brand mission statement, engaging in strategic partnerships that promoted sustainable practices, and developing marketing campaigns that emphasized the company's commitment to sustainability.

Strategic partnerships could provide access to new markets, technologies, and resources, as well as improved competitiveness and economies of scale. Strategic partnerships between businesses and NGOs were increasingly important for driving sustainable development. These partnerships involved complex stakeholder management and required satisfying different motivations of both parties. The partnerships provided valuable synergies when businesses' approach to CSR and perception of their own responsibilities aligned with Collaboration Continuum to higher levels (Nielsen & Neergaard, 2018). There were studies that attempted to create a framework that emphasized the importance of collaboration,

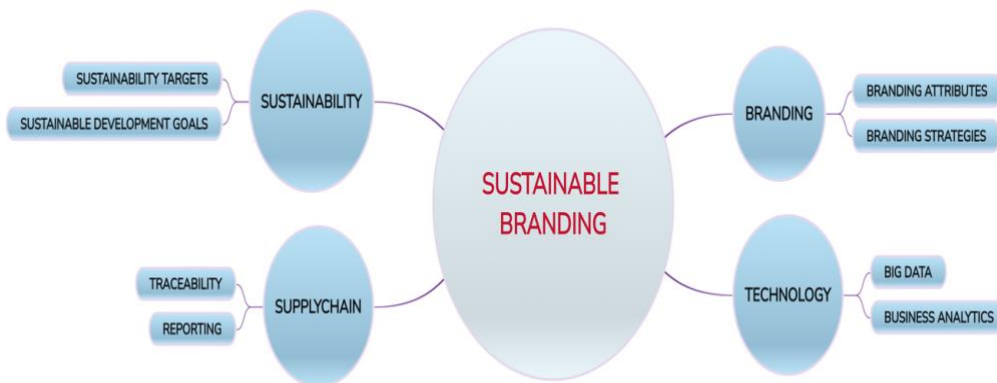
coordination, and information and product flow management in achieving long-term strategic objectives through partnerships with other organizations. The framework also highlighted the significance of demand-supply coordination between partners (Jraisat et al., 2022).

Branding attributes such as transparency, authenticity, and credibility were crucial for achieving sustainable competitive advantage through sustainable branding (Pike & Kerr, 2012). Consumers were increasingly demanding transparency from companies, and those that could demonstrate their commitment to sustainability in an authentic and credible manner could develop a loyal customer base.

Furthermore, the United Nations Agenda 2030 and Sustainable Development Goals (SDGs) provided a framework for businesses to align their sustainability efforts with global goals (Mhlanga et al., 2018). By incorporating SDGs into their sustainable branding strategies, companies were able to contribute to larger initiatives while also building a positive brand image (Aerni, 2021).

In summary, sustainable branding was a branding strategy focused on creating a positive impact on society and the environment while generating profits for the business. By adopting specific branding strategies and emphasizing branding attributes, businesses were able to develop a unique brand identity that resonated with consumers who prioritized sustainability (Aerni, 2021). The incorporation of SDGs into sustainable branding strategies could also further enhance a company's impact and reputation.

Figure 2.2: Sustainable Branding Key Concepts



Source: Created by Author (2023)

2.3.1. Definition of Sustainable Branding

One of the most interesting findings of the research was that a definition for the term 'Sustainable Branding' was not yet coined in the literature, despite being used by practitioners. In order to define sustainable branding, the study began by examining the definitions of 'sustainability' and 'branding'. While there are numerous definitions for these terms, the research utilized the simplest definitions to achieve the best results.

The term 'sustainability' has evolved over the course of several decades, with its first usage dating back to 1974 by the World Council of Churches in response to social challenges involving the environment, economics, and social justice. In 1980, the International Union for Conservation of Nature and Natural Resources provided a formal definition, describing sustainability as 'the integrated form of conservation and development for modifying the planet to ensure the survival and

well-being of the people'. This definition has since formed the basis for various stages of sustainability, regardless of whether the organization is for-profit or non-profit, and has become a mantra for building brand image.

Branding, on the other hand, is the process of endowing meaningful products by creating and shaping a brand in the minds of consumers (Kotler & Keller, 2007). While the term 'Sustainable Branding' was identified as unique, there was only one German article available on the subject in the literature, without a definition, during the search conducted in 2019. The term was not uniform and was used in different contexts such as sustainability brand, sustainability branding, brand sustainability, and others.

This study aimed to define the term 'Sustainable Branding' for the first time in the literature world. The researcher had already introduced the definition of the term to the literature world through previous publications. By the time of publication of this study, the author had already introduced the definition of the term to the literature world with this abstract definition, regardless of the context of the research. Figure 2.2 illustrates the key concepts used to build sustainable branding.

The branding strategy developed by the researcher aimed to explore the technological possibilities of big data and business analytics in combination with sustainable development goals, branding, and the supply chain of a business. The strategy focused on the management strategies for sustainable business performance by incorporating the attributes of branding and indicators of sustainability into the supply chain. The researcher emphasized the importance of effective communication in countering the difficulty in promoting the competitive advantage of sustainability in firms.

The researcher introduced a new definition for sustainable branding. It is defined as a strategic approach to building and promoting a brand that considers social, environmental, and economic sustainability while creating value for the business.

The definition emphasized the need to prioritize long-term growth without compromising on the well-being of people and the planet. The researcher aimed to explain sustainable branding as the practice of integrating sustainable practices into all aspects of the brand, from product design and sourcing to marketing and communication strategies.

Although there were no specific definitions for the term ‘sustainable branding’, many studies had used the concept of sustainability in branding and found its relevance in the literature world in terms of brand management. The researcher highlighted the significance of branding in a changing business environment and emphasized the importance of identifying a business's social commitment through sustainability. Sustainable branding helped businesses build their brand image with an identity that suits modern-era consumers who sought attributes of businesses connected to the welfare of people, planet, and profit (Arbouw et al., 2019).

2.3.2. Branding Strategies and Sustainable Branding

In recent years, sustainability had become a key consideration for businesses across all industries. As consumers became more environmentally conscious, companies shifted their focus towards creating sustainable products and services. This trend had given rise to a new approach in branding strategies, where sustainability was integrated into the core values of a company (Loučanová et al., 2021). Sustainable branding involved branding strategies that emphasized environmental sustainability, social responsibility, and ethical considerations to promote a positive brand image and enhance customer loyalty. Successful brand positioning required a deep understanding of the target market, competitive landscape, and the brand's unique value proposition. This is clearly evident from the findings in Table 1.

Branding strategies included sub-branding, brand extensions, brand repositioning, and co-branding, among others. The sub-branding strategy of dispersing green products across sub-brands was more effective than a concentrated strategy in promoting a brand's environmentally friendly image (Koo & Loken, 2022). This highlighted the importance of considering consumer self-monitoring levels and cultural differences when developing sustainable branding strategies.

Based on the research conducted by Nyagadza, Kadembo, and Makasi (2020), a conceptual model of corporate storytelling for branding was developed for personalized communications. One of the key factors identified in their study was the importance of tailoring marketing messages and communication channels to individual consumers' preferences and behaviours. This also showed that creating a sustainable branding strategy was critical for building brand equity in the business environment of the market research industry (Lehner & Halliday, 2014).

In the context of the market research industry, it was essential to understand the needs and expectations of consumers and to communicate with them in a way that resonated with their values and beliefs.

Sustainability frameworks that incorporated engagement strategies could be an effective way for brands to create and maintain a sustainable branding strategy. This involved identifying shared values between the brand and its customers and working collaboratively to generate value in a dynamic and iterative process. Engagement strategies could take many forms, including social media outreach, customer feedback programs, and community events. By actively engaging with customers, brands could gain valuable insights into their needs and preferences and use this information to develop products and services that aligned with sustainable values (Kunz et al., 2017). Overall, a sustainable branding strategy based on engagement strategies and a dynamic, iterative value generation process could help brands to build strong relationships with customers, while also contributing to a more sustainable future.

Table 2.1: Review of literature on Branding strategies

Author	Context	Findings
Loučanová et al. (2021)	Sustainability was integrated into the core values of a company in branding strategies.	Incorporating sustainability into branding strategies can have a significant impact on consumer satisfaction and loyalty, which benefits both the environment and business growth.
Khandelwal et al. (2021)	Green branding strategies are gaining importance in promoting environmental conservation.	Customer-perceived green brand image significantly contributes to the development of green brand value, green trust, and adds green loyalty.
Huertas-García et al. (2017)	Cause-related branding involves partnering with a social or environmental cause to promote awareness and support for an issue.	CRM campaigns are effective in influencing brand affinity and consumer perception, loyalty, and purchase behaviour. A strong corporate brand created through CRM can align internal audiences toward organizational goals and provide financial benefits.
Fan (2005); Alwi et al. (2017)	Ethical branding strategy involves ensuring that the brand's values align with ethical principles.	Ethical considerations play a crucial role in branding, impacting consumer behaviour and the company's relationship with society and CSR. Ethical branding helps build corporate reputation through effective focus on improving brand loyalty through service quality and pricing policies.
Murphy (1987)	Branding was used as a marketing tool for creating a sustainable competitive advantage.	The evolution of branding has made it a major marketing tool for differentiation to attract attention. The actual ingredient of branding is the brand itself, with the idea of collaborating tangible and intangible elements.
Koo & Loken (2022)	Effective branding strategies mediate consumer beliefs and brand equity while building intrinsic motivation for sustainable efforts.	Using the right branding strategies is essential for promoting the triple bottom line of sustainability. The primary aim is to maximize customer satisfaction without considering the size of the market.

Kozinets (2021)	Algorithmic branding was implemented through big data and business analytics.	The need for understanding brands and how they perform is highly important, especially for businesses that use predictive and analytic platforms for social media. Algorithmic branding can be used for ethical or unethical advantages to create a competitive edge.
Burrell & Fourcade (2021)	Unethical inclusion of algorithms in predictive systems does not consider how users are impacted; mostly, it focuses on results that can create cost optimization or risk minimization.	Understanding behavioural patterns of device or media interactions can lead to brands using them for unethical advantages.
Liu & Dijk (2022)	Combining traditional branding strategies for data collection along with the use of big data analytics can provide sustainable impact.	Identifying the right brand attributes will help big data adhere to changes with the help of the right performance indicators during the sustainability assessment through big data and analytics.
Pasquinelli et al. (2021); Gulisova et al. (2021)	Place branding strategy helps determine sustainable brand attributes that add value to the brand.	Place branding strategy helped various countries establish sustainable development goals and respond effectively to the pandemic crisis by utilizing explorative insights from sustainable place brand propositions. Social sustainability outcomes of place branding have significant impacts on economic and environmental sustainability dimensions.
Sajjad et al. (2015); Mihardjo et al. (2019)	Sustainable supply chain management as a brand strategy helps increase brand image and overall business performance.	Integrating sustainability principles in the supply chain can help yield high results for sustainable development. Branding in the sustainable supply chain helps increase business performance.
Cetindamar et al. (2022)	Big data in the supply chain can improve business performance.	By combining corporate sustainability with sustainable society and utilizing big data in its supply chain activities, a positive impact on business performance can be achieved. Economic performance should be considered alongside social and environmental factors for sustainable business performance.
(Kunz et al., 2017)	Engagement strategies can be an effective way for brands to create and maintain a sustainable branding strategy by identifying shared values.	By focusing on shared experience perception and collaboration, brands can create more value for their customers and strengthen their engagement strategies over time.

In the market research industry, where big data and business analytics played a critical role in understanding consumer behaviour and preferences, incorporating sustainability into branding strategies had a significant impact on consumer satisfaction and loyalty. This approach not only benefited the environment but also had the potential to drive business growth and increase market share (Lehner & Halliday, 2014). In this context, this paper explored the significance of sustainability in branding strategies in the market research industry.

Green branding strategies involved using eco-friendly and sustainable materials for products, reducing waste and carbon footprint, and promoting environmental conservation. Green branding is a marketing strategy where brands or products were associated with environmental sustainability and conservation. It is viewed as an effective approach to gain environmental benefits over rival companies, and customer-perceived green brand image significantly contributed to the development of green brand value, green trust, and added green loyalty (Khandelwal et al., 2021).

Green branding gained importance due to increasing environmental issues, and organizations modified their promotional and manufacturing practices into eco-friendly forms. Customers were willing to purchase environmentally sustainable goods knowing that the parent company owned green brands, and corporations built their brand image as companies that satisfied their customers while also paying attention to climate change (Koo & Loken, 2022). Green branding is considered an effective strategy to provide sustainable products and services compared to only observable performance attributes.

Cause-related branding strategies involved partnering with a social or environmental cause to promote awareness and support for a particular issue. Cause-related branding was a marketing strategy where a brand associated itself

with a social cause or issue to create a positive image and enhance its reputation (Huertas-García et al., 2017). Studies were conducted to identify the connection between cause-related marketing and corporate branding. Cause-related marketing (CRM) could enhance and build a corporate image or brand by engaging individuals mentally and emotionally with a corporation (Demetriou et al., 2010). CRM campaigns were effective in influencing brand affinity and consumer perception, loyalty, and purchase behaviour.

A strong corporate brand created through CRM aligned internal audiences toward organizational goals and provided financial benefits, including enhanced financial performance and value creation. Corporate identity included the cues offered by an organization through its behaviour, communication, and symbols that formed perceptions and attitudes toward the organization. A positive corporate image was the foundation for corporate success and could be an incentive for the sale of products, recruitment of the best employees, attraction of investors, and competitive advantage (Demetriou et al., 2010).

Ethical branding strategy involved ensuring that the brand's values aligned with ethical principles such as fair trade, human rights, and animal welfare. Studies were conducted to prove that ethical considerations played a crucial role in branding with its impact on consumer behaviour and its relationship with society and CSR (Fan, 2005). They also mentioned its importance with building corporate reputation through effective focus on improving brand loyalty through service quality and pricing policies (Alwi et al., 2017).

Branding was primarily used as a marketing tool for creating a sustainable competitive advantage. The evolution of branding since its inception, from only products to products, services, or any causes that needed attention, had made branding a major marketing tool for differentiation to attract attention. The actual

ingredient of branding was the brand itself, with the idea of collaborating tangible and intangible elements (Murphy, 1987). The need to choose a competitive strategy was highly relevant for attracting attention, which in turn created a competitive edge for performance. This was done by stimulating demand and a favourable competitive stance, such as technologies that could forecast and implement new actions with ease for future directions (Abimbola, 2001).

Studies had shown the importance of branding strategies in the sustainability efforts of companies, which had mediating effects on consumer beliefs and brand equity of a particular brand. It also created an effect of intrinsic motivation of the brand in building a sustainable effort, which could create a positive impact on the customers' perceptions of the company (Koo & Loken, 2022). It proved the importance of using the right branding strategies with respect to the key elements of marketing.

It was very important to understand the need for using effective branding strategies as a part of effective marketing efforts for promoting the triple bottom line of sustainability through the sustainability pyramid. The triple bottom line helped prioritize branding efforts through marketing in the order of economic, social, and environmental sustainability. This had a high impact on the behavioural change in the mainstream users of the brand who were highly concerned about the term 'sustainability'. Any change in this order could have an impact on consumer behaviour for behavioural change. The primary aim of incorporating branding strategies as a part of marketing efforts was to maximize customer satisfaction without considering the size of the market (Lim, 2022).

Exploring and understanding the branding strategies used in technology industries is crucial for innovation and growth. While corporate branding strategies had been a priority for companies in the past, the importance of

effective branding strategies had shifted towards technology companies that had significant branding power. Incorporating sustainability into their branding efforts was necessary to ensure that ethical and practical considerations were taken into account by policy makers (Carah, 2017). Algorithmic branding, which leveraged big data and business analytics to collect data from the internal and external environment of a business, could facilitate this process (Kozinets, 2021). Understanding how brands performed, particularly for businesses that utilized predictive and analytic platforms for social media, was vital to co-create shared values within the business environment (Kunz et al., 2017).

The need to consider these types of practices entirely depended on the connection of brand attributes such as devices, people, and the cultural environment of the business, which could help brands use the right combination of algorithms that assisted in big data analytics. Such brands were considered algorithmic brands, which very well used the algorithmic media infrastructure from the internal and external environment of the business using the right brand attributes (Carah, 2017). Society had changed to the point where the more the interaction through digital media, the more the ability to understand behavioural and decision-making processes through algorithmic branding, which could lead to brands using it for ethical or unethical advantages to create a competitive edge (Mikalef et al., 2020).

The social implications of algorithms were highly relevant in the field of sustainability and branding, as they involved the way people participated, associated, and thought by understanding their behavioural patterns of using devices or social media through algorithms (Kozinets, 2021). Algorithms had the power of social class-making according to the needs of the business users, where brands could become predators in using the behavioural patterns through their device or media interactions. Often, the unethical inclusion of algorithms in predictive systems did not focus on how the users were impacted; mostly, it

focused on results that could create cost optimization or risk minimization, depending on the nature of the business (Burrell & Fourcade, 2021). Qualitative study could potentially help to provide deeper insights into the experiences and perspectives of individuals affected by algorithmic decision-making, which could inform branding strategies or marketing campaigns that aimed to appeal to those populations (Burrell & Fourcade, 2021). Additionally, qualitative research could be used to understand how people responded to algorithmic intermediation in digital communication, which could inform social media or advertising strategies for process optimization.

The challenges of adapting sustainable practices into an existing system were well identified by researchers with the possibility of involving big data in the policymaking and implementation stages as it involved proactively working according to the changes of the social circumstances. Identifying the right brand attributes helped big data adhere to the changes with the help of the right performance indicators during the sustainability assessment through big data and analytics. The combination of traditional branding strategies for data collection along with the use of big data analytics provided sustainable impact through its practice (Liu & Dijk, 2022).

The place branding strategy was crucial in identifying essential attributes for achieving a competitive advantage and gaining sustainable insights. It helped companies determine the right branding attributes for sustainable advantage, particularly during and after the COVID-19 pandemic era. Pasquarelli et al. (2021) noted that the place branding strategy helped various countries to establish sustainable development goals and respond effectively to the pandemic crisis by utilizing explorative insights from sustainable place brand propositions. Moreover, Gulisova et al. (2021) found that the social sustainability outcomes of place branding had significant impacts on economic and environmental

sustainability dimensions. Overall, the place branding strategy was valuable in generating explanatory insights and creating sustainable brand attributes that added value to the brand.

According to a qualitative study, place branding had the potential to benefit the sustainability of rural communities, as revealed through case studies from Denmark. The level of institutionalization of the approach and the extent of actor engagement impacted social sustainability outcomes. Through the use of a qualitative research design, the study gained deeper insights into stakeholder experiences and perspectives on the benefits and challenges of place branding initiatives. This study underscored the value of qualitative research in informing future place branding strategies and decision-making processes aimed at promoting sustainability in rural communities (Gulisova et al., 2021).

Another important branding strategy that was widely used to connect the concepts of sustainability and branding was through sustainable supply chain management. The integration of sustainability principles in the supply chain helped yield high results for sustainable development (Sajjad et al., 2015). The use of sustainable supply chain management as a brand strategy helped increase brand image, which could have a positive impact on the sustainable supply chain performance of the brand, thereby increasing the business's overall performance. Thus, branding in the sustainable supply chain helped increase business performance (Mihardjo et al., 2019).

Studies related to big data and supply chain were considered highly significant among modern researchers in the post-pandemic era due to their ability to rapidly manage complex information, thereby improving business performance. Factors that could drive performance through big data included reducing delivery time in the supply chain, which could help reduce costs and increase profits. While some

considered economic performance as sustainability-irrelevant, it was important to consider all factors, including social and environmental ones, for sustainable business performance. By combining corporate sustainability with a sustainable society and utilizing big data in its supply chain activities, a positive impact on business performance could be achieved through actions that could optimize revenue generation and boost profitability (Cetindamar et al., 2022).

2.3.3. Branding Attributes for Sustainable Competitive Advantage

The attributes of branding that involved sustainability helped regulate the use of data-driven from the business environment in an ethical manner, which benefited society as a whole. Even though companies used data from the internal and external business environments, the primary branding attributes were often useful from the perspective of the people involved in these environments. This mainly involved the capacity of big data and business analytics to help use brand strategy through the right branding attributes that could deliver data-driven results that mediated action from clients or consumers of products or services (Carah, 2017).

Sustainable partnerships were established through brand value co-creation and dynamic brand value chain. This meant that both the brand and its partners had a shared interest in creating value for their customers, and they worked together to achieve this goal. One important characteristic of successful sustainable partnerships was the perception configuration of shared experiences. This referred to the way that both the brand and its partners viewed the experience of interacting with the brand. Using technology platforms provided a space where the brand and its partners could collaborate and co-create value for customers. They allowed for real-time communication and feedback, which helped to build trust and strengthen relationships between the brand and its partners (Hsiung et al., 2021)

The review of literature table in this section shows the added literature for branding attributes apart from the one sited in previous section:

Table 2.2: Review of literature for Branding attributes

Author	Context	Findings
Carah (2017)	The attributes of branding that involve sustainability can benefit society by regulating the use of data-driven from the business environment in an ethical manner.	The primary branding attributes are often useful in delivering data-driven results that mediate action from clients or consumers.
Burrell & Fourcade (2021)	Regulating the process of using algorithms in a sustainable manner is important to avoid exploitation of vulnerable populations and ensure sustainability for future generations.	The need for being human and sustainable while creating a competitive advantage is often overlooked in profit-maximizing companies.
Pasquinelli et al. (2021)	Place branding can help identify brand values that have a sustainable impact by considering tangible and intangible heritages that impact users.	Brand values created with sincerity, excitement, competence, sophistication, or uniqueness can have a sustainable impact when used with the right indicators of sustainability.
Shou et al. (2022)	Supply chain integration in sustainable management practices is positively associated with sustainable competitive advantage through information related to suppliers and customers.	The different dimensions of sustainability can be identified from supply chain information such as traceability, transaction, commitment, impact, activity, and effectiveness information. Transparency of information within the supply chain system also helps manage information in the internal and external environment.
Cetindamar et al. (2022)	Big data in supply chains can drive business performance by reducing delivery time, costs, and increasing profits.	Combining corporate sustainability with a sustainable society can have a positive impact on business performance with the help of big data in its supply chain activities.

Successful sustainable branding required a collaborative approach that emphasized shared experience, resource sharing, and co-creation. By working together in this way, brands and their partners could create more value for customers while building stronger, more resilient relationships that benefited everyone involved (Hsiung et al., 2021).

In the past, big data was used to regulate the process of using algorithms using the sustainability agenda to ensure that coding elites did not take advantage of poor and minority populations who were weak and may fail to understand the negative implications for future generations as well (Burrell & Fourcade, 2021). However, the need for liberating the digital world, which mostly focused on profit maximization by following legal institutions in their environment, often forgot the need for being human and sustainable for future generations since machines could not think judicially without enabling the right attributes of sustainability and branding while trying to create a competitive advantage.

In the past, place branding helped identify the major sets of brand attributes associated with the business environment that could help the internal and external environments in various ways. It helped have clear insights from tangible and intangible heritages that could impact the users of a particular place. These could be history, religion, art, landscape, culture, tradition, food, nightlife, shopping, climate, social media, innovation, transport, services that could be institutional or not. It could also generate brand values created with sincerity, excitement, competence, sophistication, or uniqueness. Understanding the similarities and dissimilarities between places and people in connection with the attributes of branding helped create brand values that could have a sustainable impact when used with the right indicators of sustainability (Pasquinelli et al., 2021).

Although supply chain integration in sustainable management practices gained attention among researchers in the past, studies did not clearly try to establish it into their systems due to vital enablers that defined inter- and intra-organizational sustainable management practices. This involved information related to suppliers and customers that were positively associated with sustainable competitive advantage (Shou et al., 2022). The attributes of supply chain management as a branding strategy in this sustainable study helped focus more on the impact through transparency of information in the supply chain for sustainable reporting for creating a competitive edge.

In the past, the different dimensions of sustainability were identified from different aspects of supply chain information. It involved traceability information as a governance dimension, transaction information for purchase practices and financial transactions involving the economic aspect of sustainability (Shou et al., 2022). Commitment information from the supply chain helped identify the social and ecological perspectives that also had an impact on the governance dimension of sustainability.

Activity information helped identify timely changes that needed supervision as part of implementing sustainable practices in the business environment. Finally, effectiveness information evaluated the sustainability practices in the social, environmental, and economic aspects, depending on the nature and needs of the business environment that implemented sustainable practices into their system. Another aspect was the dimension that involved transparency, connecting stakeholders within the supply chain system that helped manage information in the internal and external environment (Schäfer, 2022). Table 2 provided a detailed summary of the results concerning the primary characteristics of branding, in addition to those included in Table 1, along with branding strategies.

Studies related to big data and supply chains were considered highly significant among modern researchers in the post-pandemic era due to the rapid management of complex information in creating business performance. Some factors that could drive performance through big data included a positive impact on economic performance by reducing delivery time in the supply chain, thereby reducing costs and increasing profits. Preachers of sustainability often considered this part of the triple bottom line as sustainability-irrelevant, while social and environmental factors were usually considered sustainability-relevant. For sustainable business performance, it was essential to consider all relevant factors. Combining corporate sustainability with a sustainable society could have a positive impact on its business performance with the help of big data in its supply chain activities (Cetindamar et al., 2022).

2.3.4. UN Sustainable Development Goals (SDGs) in Sustainable Branding

The world is currently pursuing the Sustainable Development Goals (SDGs) through the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change, which were established by the United Nations. The initiative included 17 SDGs, with six initially supported by the World Business Council for Sustainable Development and the World Benchmarking Alliance (Sachs et al., 2019). Given the importance of the digital revolution for sustainable development, this research used dimensions and attributes from the United Nations' 17 SDGs, as shown in Figure 2.3.

The aim of this research was to develop an indicator framework for sustainable branding using selected SDGs in market research that involves technology. By targeting the right sustainability goals, businesses could deploy a sustainable branding framework into existing and new entrants in the industry without hassle. The SDGs were globally recognized as critical for sustainable development and

deployment, successfully identifying the dimensions of implementation, challenges, and links needed to achieve sustainability goals (Stafford-Smith et al., 2017).



Figure 2.3: Sustainable Development Goals (SDG)-UN Agenda 2030

Source: www.sdg.un.org/goals

The work of sustainability thinkers worldwide, including researchers, practitioners, knowledge workers, teachers, and students, was strengthened by the United Nations' sustainability development goals (SDGs) (Messerli et al., 2019). The identification of strategic goals was crucial for any organization's business performance, and sustainable branding helped achieve this by linking strategic brand management with sustainability dimensions. This approach aligned business interests with stakeholders, marketing aggressiveness, and societal influence (Medvedeva et al., 2021).

Sustainable marketing created and captured value by connecting the internal and external business environment, as defined by sustainability and marketing knowledge workers. Strategic goals of sustainable branding were influenced not only by relationships and processes but also by external factors such as economic competition, innovation in technology, legal and financial policies, budgetary constraints, and the information environment (Mitchell et al., 2016). Achieving strategic goals of sustainability was essential for firms operating in the modern business environment, regardless of their needs for sustainable branding.

The integration of sustainable branding in business operations automatically aligned strategic goals, creating synergy. While strategic goals may have varied among businesses, sustainability was a priority that enhanced maximum output while achieving sustainability goals (Medvedeva et al., 2021) integrated into the business. Integrating sustainable branding may have seemed challenging, but its long-term benefits outweighed short-term gains from solely focusing on business goals (Ordonez-Ponce et al., 2021). Many companies reaped the benefits of integrating sustainability in their marketing framework, making this research framework invaluable for achieving strategic goals through sustainable branding.

Table 2.3: Review of literature for Sustainable Development goals in Sustainable branding

Author	Context	Findings
Sachs et al., 2019	The world is pursuing sustainability development goals (SDGs) through the UN's 2030 sustainability agenda and Paris agreement on climate change.	The initiative includes 17 SDGs, with six initially supported by the World Business Council for Sustainable Development and the World Benchmarking Alliance.
Stafford-Smith et al., 2017	The SDGs are globally recognized as critical for sustainability development and deployment, successfully identifying the dimensions of implementation, challenges, and links needed for achieving sustainability goals.	Identifying strategic goals is crucial for any organization's business performance, and sustainable branding helps achieve this by linking strategic brand management with sustainability dimensions.
Medvedeva et al., 2021	Sustainable marketing creates and captures value by connecting the internal and external business environment, as defined by sustainability and marketing knowledge workers.	Integrating sustainable branding may seem challenging, but its long-term benefits outweigh short-term gains from solely focusing on business goals. Companies have reaped the benefits of integrating sustainability in their marketing framework.
GRI & UN Global Compact, 2018	The Global Reporting Initiative (GRI) published a practical guide for practitioners and researchers to promote a sustainable society that can be used by any profit or non-profit seeking sectors.	The practical guides provide a clear-cut idea on defining priority targets according to the nature of the business or industry by understanding the goals and targets.
Thomas, 2019	The GRI standards and stakeholders can determine which goals should be given prime importance for decisions and assessments. Discussions at this stage with expert stakeholders help to make adjustments that can deliver the	The primary aim is to engage stakeholders from all levels to enhance sustainable decision-making processes and enhance competitive advantage through sustainable management practices.

	best results in the internal and external environment of the business.	
Boys, 2019	Private sector companies work for governments thereby gaining sustainable advantage for activities that provide mutual benefit from the profit-seeking model of the industry in the private sector and the government that gets better services from the private sector which is mutually benefitted for the upcoming of the society.	Private sector companies work with governments to gain sustainable advantage for activities that provide mutual benefit from the profit-seeking model of the industry and the government.
Carpentier & Braun, 2020	The use of technologies like Big data and Artificial intelligence are generating opportunities in the financial sector by attracting investors.	The transformation of business strategy is possible while working through the sustainable development goals by defining the right SDG goals and targets. Due to the risk associated with exposure of certain SDG goals, companies stay back from fetching the advantages of sustainability reporting.
Rashed & Shah, 2021	Several studies have recommended the inclusion of SDGs as part of the benchmarking process in private sector companies to contribute to their economic, social, and environmental aspect through their business plans, strategies, and management.	Utilizing the SDGs through a business strategy is achievable by carefully selecting the right SDG goals associated with the industry and for the organization's sustainable competitive advantage.
Birendra et al., 2021	The market research industry deals with a huge amount of data and insights generated from different sources.	Utilizing the SDGs through a business strategy is achievable by carefully selecting the right SDG goals associated with the industry and for the organization's sustainable competitive advantage.
Cordova & Celone, 2019	The SDG 17 coordinates or interlinks every other Sustainable Development goal through strengthening the	The implementation of SDG 17 can act as one of the most important aids in pursuing or interlinking other SDG targets while on the pursuit of gaining a

	means of implementation through sources that have the capacity by its own or through global partnerships.	competitive edge through a sustainable business strategy that uses the UN Agenda 2030.
Maltais et al., 2018	The SDG's are used as a combination with respect to the complexity of the business environment of the Market Research Industry of the UK with a performance impact for creating a sustainable competitive edge along with other business resources.	Spreading the knowledge of SDG's will increase the quality with new research on strategies that can create sustainable advantage.
(Jraisat et al., 2022)	Importance of collaboration in achieving advantage through strategic partnerships.	Long-term strategic objectives can be achieved through collaboration, coordination, and cooperation with other organizations. Effective management of information flow and product flow, along with demand-supply coordination between partners, are crucial elements of such collaborations.
Franco & Abe, 2020	An effective sustainability performance approach fails mostly because of an ineffective business strategy or framework.	Correct implementation of the SDGs is crucial to create sustainable advantage.
Buhmann et al., 2019	The SDG 17 act as the most interlinking SDG connection with the government or global partnerships that can enhance innovative ideas for conducting business for sustainable development.	The implementation of SDG 17 can help gain more support from stakeholders as well as from the government

2.3.4.1 Analysis and Targeting of Sustainable development goals

The identification of the right set of goals and objectives was crucial for creating a sustainable advantage in any business or industry, as was clearly evident from the findings in Table 3. To achieve this, globally accepted standards were used in conjunction with stakeholders in the industry through the Business Reporting of SDGs published by the Global Reporting Initiative (GRI) in association with the United Nations Global Compact and Price Water Coopers (GRI & UN Global Compact, 2018). Their combined effort had created an efficient and practical guide for practitioners and researchers in the field to promote a sustainable society that could be used by any profit or non-profit-seeking sector.

The practical guides provided a clear-cut idea of defining the priority targets according to the nature of the business or industry by understanding the goals and targets. This process moved onto a process called principled prioritization, in which the SDG targets were prioritized according to the activities of the business by identifying and mitigating associated risks. At this stage, the GRI standards and stakeholders could determine which goals should be given prime importance for decisions and assessments. Discussions at this stage with expert stakeholders helped to make adjustments that could deliver the best results in the internal and external environment of the business (Thomas, 2019).

The primary aim of using the GRI practical guide was to engage stakeholders from all levels to enhance sustainable decision-making processes and enhance competitive advantage through sustainable management practices. These activities helped shape the business strategy and promote the brand as a sustainable business, which in turn activated the need for innovation and better performance when there was a need to create a sustainable advantage. This created interest from investors who were looking forward to the potential of a

sustainable business and markets in the future (GRI & UN Global Compact, 2018). Implementing SDGs in the beginning days was just a part of business reporting. A major shift was seen while private sector companies had started using some of the SDG targets as part of their profit model (Thomas, 2019).

2.3.4.2. Sustainable development Goal 17

This research mainly focused on SDG 17, as shown in figure 2.4, which emphasized partnerships for the goals that used the best available technological innovations to provide sustainable advantages. For instance, private sector companies could work with governments, thereby gaining sustainable advantages for activities that provided mutual benefits from the profit-seeking model of the industry in the private sector and the government that got better services from the private sector. This was mutually beneficial for the development of society (Boys, 2019).



Figure 2.4: SDG 17- Original Logo and colour

Source: United Nations website (2023)

(www.un.org/sustainabledevelopment/globalpartnerships/)

This research contributed to SDG Target 17, which promoted the implementation and revitalization of the Global Partnership for Sustainable Development, adding to the 16 substantive goals. The use of technologies like Big Data and Artificial Intelligence was generating opportunities in the financial sector by attracting investors. This target helped to harness innovative ideas in the area of science and technology that could contribute well to society and the environment as a whole with innovative business models. This critical transformation of business strategy was possible while working through the Sustainable Development Goals by defining the right SDG goals and targets (Carpentier & Braun, 2020).

Several studies recommended the inclusion of SDGs as a part of the benchmarking process in private sector companies to contribute to their economic, social, and environmental aspects through their business plans, strategies, and management (Rashed & Shah, 2021). The GRI guidelines along with the UN Agenda 2030 clearly defined the need for sustainable development. This research clearly advocated the use of new technology like Big Data and Business Analytics for sustainable development. There was a need for the implementation of the SDG targets for creating a sustainable change that could lead to a sustainable business advantage which could identify and mitigate risks for a sustainable society.

The SDG Agenda 2030 was considered the biggest-ever consulted project in the history of the UN, with 193 countries approving the sustainable development project. This was identified through analysing the SDG targets, which clearly promoted the implementation and revitalizing the sustainable development goals on a global basis. Identifying an SDG target for the research was challenging as it purely involved the industry or the organization for which it required to deliver sustainable advantage involving all stakeholders, which included researchers,

practitioners, individuals, and organizations who worked towards sustainability. The agenda called for all organizations, businesses, and citizens from different parts of society to work on the project to use their creativity and innovation for sustainable development (Carpentier & Braun, 2020).

The risks associated with exposure to certain SDG goals made companies hesitant to adopt sustainability reporting. Risks identified included goal 6 on water consumption and pollution, goal 15 on land pollution and deforestation, and the most significant goal 17, which is mainly related to financial transparency (Rochelle J. March, 2020). The market research industry deals with a vast amount of data and insights generated from different sources. Sustainable Development Goals can be utilized through a business strategy by carefully selecting the right SDG Goals associated with the industry and the organization's sustainable competitive advantage. Sometimes, some of the SDG goals may not be fully applicable to the business for the full implementation of all the 17 SDG goals (Birendra et al., 2021).

The SDGs were used in combination with respect to the complexity of the business environment of the Market Research Industry of the UK, with a performance impact for creating a sustainable competitive edge along with other business resources. SDG 17 is one of the most important SDGs that coordinate or interlink every other Sustainable Development goal, through strengthening the means of implementation through sources that have the capacity by its own or through global partnerships. SDG 17 can act as one of the most important aids in pursuing or interlinking other SDG targets while on the pursuit of gaining a competitive edge through a sustainable business strategy that uses the UN Agenda 2030 (Cordova & Celone, 2019).

SDG 17 is categorized into seven sections that can improve the quality of operations in private organizations as a part of the implementation of sustainable development goals in society. The seven sections are finance, technology, capacity building, policy coherence, partnerships, and finally data monitoring & accountability. If these categories are worked on at the organizational level and industry level, the implementation will occur on a national level and local level. Spreading knowledge of SDGs will increase the quality of new research on strategies that can create a sustainable advantage (Maltais et al., 2018). There are studies that show an effective sustainability performance approach fails mostly because of an ineffective business strategy or framework in the business environment (Franco & Abe, 2020).

SDG 17 acts as the most interlinking SDG connection with the government or global partnerships that can enhance innovative ideas for conducting business for sustainable development. This goal addresses the users of the SDG goals 1-16 in targeting goals and reporting it without overlapping with the objectives of the business. This helps in creating value through knowledge and expertise through the activities in the value chain, which can mainly be through technology and financial resources using relevant industry standards that help attain the SDG goals interlinked in the business strategy (Buhmann et al., 2019). This helps gain more support from stakeholders as well as from the government, which in turn can result in attaining sustainable business performance.

2.4. Big Data and Business Analytics in Sustainable Branding

In the past two decades, there was a significant increase in data flow between organizations and individuals. This enabled organizations to gain insights that provided a competitive advantage and informed decision-making processes (Gupta & Mishra, 2021). Business analytics and data science became essential components of business intelligence with the emergence of big data trends (Larson & Chang, 2016). Big data played a dominant role in co-creating knowledge for organizations through insights derived from data (Acharya et al., 2018). According to Porter, the traditional value chain still held its unique role in creating value for organizations. However, cross-disciplinary views of big data analytics in management literature suggested that many domains overlapped in the application of big data, and the theories used to prove those linkages differed across domains (Sheng, Amankwah-Amoah, & Wang, 2017).

The relevance of big data and business analytics continuously evolved, and their enormous potential made it challenging to comprehend their definitions and classifications. Despite extensive research into big data and analytics, it remained an academic challenge due to the lack of management literature in the field (Sivarajah et al., 2017). Researchers did not explore in detail the relevance of big data in sustainability and branding, although some attention was given to proving its existence (Lichtenthaler, 2021). Big data referred to dynamic sets of data from internal and external aspects of businesses (Shivam Gupta et al., 2018).

Sustainable branding could align the internal and external aspects of big data to promote brands with sustainability factors without incurring significant changes in the business environment.

Qualitative research design in this study provided a nuanced understanding of stakeholders' experiences and perspectives, highlighting potential benefits and

challenges of place branding initiatives for promoting sustainability in rural communities (Gulisova et al., 2021). Big data could complement by providing insights for business into consumer behaviour and market trends. Sustainable branding could leverage these insights to develop targeted campaigns that resonated with consumers' values and preferences, ultimately promoting sustainability and driving positive social outcomes (Hansen & Schröder,2018). Sustainable branding could foster informed decision-making that balanced economic, environmental, and social considerations.

Qualitative research could be utilized to explore topics such as idea generation, building brand trust, opportunities orientation, and enhancing entrepreneurial gain through exit strategies (Abimbola, 2001). Additionally, sustainable branding was an area where branding research could have significant impact. By using qualitative methods, researchers could delve into issues such as consumer perceptions of sustainability, the effectiveness of eco-friendly product labelling, and the social responsibility of brands (Alcaide et al.,2019).

Furthermore, big data provided a valuable opportunity for marketers to gain insights into consumer behaviour, allowing them to tailor their branding efforts to specific target audiences (Abimbola, 2001). It further suggested that embracing sustainable branding and utilizing big data could help businesses develop effective branding strategies that resonated with consumers and drove success. Aligning sustainable development goals through sustainable branding and big data was an organizing process that used existing resources in the internal and external business environment (Shou et al., 2022). Sustainability had always been complex; however, when interconnected with the internal and external business environment, it could have a positive impact on society.

Table 2.4: Review of literature for Big Data & Business Analytics (combined)

Author	Context	Findings
Gupta & Mishra (2021)	Increase in data flow between organizations and individuals	Business analytics and data science are essential for business intelligence and decision-making.
Larson & Chang (2016)	Emergence of big data trends	Big data is crucial for decision-making in business analytics, and researchers need to examine its implications.
(Currie et al., 2020)	Brand Performance through supply chain relationships	Utilizing big data analytics to capture and analyse consumer data can provide valuable insights into sustainable consumption patterns.
Acharya et al. (2018)	Big data's role in co-creating knowledge for organizations	Insights derived from data play a dominant role in co-creating knowledge for organizations.
Sheng et al. (2017)	Overlapping domains in the application of big data analytics	Theories used to prove linkages differ across domains in management literature.
(El Hilali et al., 2021)	Commitment to Sustainability through innovation and collaboration	Demonstrating a genuine commitment to promoting environmental and social sustainability in business operations.

Sivarajah et al. (2017)	Lack of management literature on big data and analytics	Extensive research has been conducted, but it remains an academic challenge due to the lack of management literature in the field.
Lichtenthaler (2021)	Relevance of linking sustainability initiatives with business activities	Big data can align with sustainable branding to promote sustainability factors in businesses by capitalizing on sustainable design concepts
Leenen & Meyer (2021)	Definition of big data	Big data is difficult to manage, but technologies like artificial intelligence can handle structured and unstructured data more efficiently.
Bartel (2021)	Descriptive, predictive, and prescriptive data in business analytics	Business analytics provides insights for decision-making based on data analysis.
(Raut et al., 2019)	Theoretical and practical insights for improving Sustainable business performance	Insights into big data implementation issues to improve sustainable business performance in developing countries.
Tim et al. (2020)	Business analytics in value creation	Sustainable branding aims to create and capture value in business, which can be achieved by implementing business analytics.
Nalchigar & Yu (2020)	Gap between business stakeholders and market research analysts	Business analytics helps reduce the gap between business stakeholders and market research analysts.
(Kim & Ko, 2012)	Importance of understanding subjective experiences and engaging through marketing campaigns	Qualitative research helped to identify key factors influencing consumer engagement with social media marketing campaigns that were not captured by traditional quantitative methods.

Ransbotham et al. (2016)	Technological confusion in the market research industry	Sustainable branding helps reduce the gap between smaller and larger players in the industry.
Manzoor et al. (2021)	Artificial intelligence on sustainability-friendly systems	Sustainable branding can be seen in firms working towards artificial intelligence on sustainability-friendly systems.
Chen et al. (2021)	Big data's impact on business environment governance	Big data techniques can promote better governance through continuous monitoring and identification of risk factors.
Ibrahim et al. (2021)	Big data's impact on financial reporting and performance	Big data can enhance financial reporting, performance measurement, and other activities related to supply chain finance.
Kar & Kushwaha (2021)	Valuable services created by web data mining	Web data mining can create value-added services by finding new and unexplored sources and processing analytical results developed from business analytics.
Aversa et al. (2021a)	Corporate strategy facilitated by big data	Big data fosters corporate strategy, facilitating the decision-making process by exploring potential unexplored resources.
Tomczak et al. (2018)	Big data's role in employee performance monitoring	Big data plays a vital role in regulating employees with compliance, minimizing governance issues through a monitored environment.
Rialti et al. (2018)	Agility in the work-from-home environment facilitated by big data	Big data creates room for cultural shift and agility in the business process, enabling exploration of more resources and change for sustainable impact within the internal environment of the business.

(Ramanathan et al., 2017)	Create edge by understanding individuals' subjective experiences and perceptions.	Qualitative research can capture the subjective experiences and perceptions of individuals and provide rich descriptions of their behaviours, attitudes, and motivations.
Mikalef et al. (2020)	Transparency of social responsibility commitments	Businesses that fail to maintain transparency at appropriate levels can have adverse effects on their competitive edge and sustainability in the market.
(Abimbola, 2001)	Gain insights into consumer behaviour, allowing them to tailor their branding efforts to specific target audiences	Qualitative research can be used to investigate issues such as idea generation, building brand trust, opportunities orientation, and enhancing entrepreneurial gain through exit strategy.
Branco et al. (2021)	Big data's capabilities in curating KPIs on sustainable mobility	Big data's capabilities in curating and visualizing KPIs on sustainability and innovation in the internal environment are becoming crucial for technology researchers concerned with sustainable mobility in business models.
(Tambe, 2014)	Increasing productivity through Return on Investment	Investing in big data help to increase productivity by choosing specific labour markets and attain faster return on investments.
Min et al. (2021)	Machine learning in improving business practices	Data generated from website users provide critical insights into their behavioural patterns, and advanced technologies like machine learning can formulate decision-making strategies for branding and improving business practices.
Guizzardi et al. (2021)	Dynamic pricing algorithms with big data from revenue management	Dynamic pricing algorithms with big data enable timely governance updates, increasing a company's credibility in the external business environment among stakeholders, fostering innovation in socially responsible sustainability initiatives.

2.4.1. Definition of Big Data and Business Analytics: A Catalyst for Sustainable Branding

The imperative of sustainable branding within the digital realm has been propelled by the advent of cutting-edge technologies adept at managing extensive and intricate datasets. These transformative technologies, notably 'Big Data' and 'Artificial Intelligence' (AI), have been instrumental in handling both structured and unstructured data, underpinning the drive toward sustainable branding (Leenen & Meyer, 2021). 'Big Data' denotes datasets of substantial size and complexity, whose management transcends the capabilities of traditional database systems (Leenen & Meyer, 2021).

In the context of the market research industry, often referred to as the insights industry, data refinement stands as a central pillar, where raw data is meticulously transformed into valuable insights. These insights serve as the bedrock for informed decision-making, capable of maximizing organizational performance. Here, 'Business Analytics' assumes a pivotal role, encompassing the utilization of descriptive, predictive, and prescriptive data, tailored to the specific objectives of organizations (Bartel, 2021). Beyond a mere toolset, 'Business Analytics' encapsulates a suite of technological skills and methodologies continuously exploring and dissecting data to offer invaluable insights for informed decision-making (Ghosh, 2015).

Within this ecosystem, sustainable branding emerges as a potent force in creating and capturing value within the realm of business. The integration of business analytics, particularly leveraging 'Big Data' and AI programming, plays a pivotal role in shaping this value creation (Tim et al., 2020). The market research industry, oriented towards extracting refined insights from data analyses to

bolster business decisions and operations, aligns seamlessly with the utilization of business analytics to craft sustainable branding strategies. This synergy works to bridge the gap that has historically existed between business stakeholders and market research analysts, fostering enhanced communication and collaboration (Nalchigar & Yu, 2020).

Historically, smaller companies often encountered challenges in upgrading their processes, grappling with the rapid advancement of computer programming technologies. This technological turbulence occasionally resulted in confusion within the market research industry (Ransbotham et al., 2016). Sustainable branding, characterized by a continual audit of results and their presentation to management, serves as a potent equalizer, reducing the chasm that often separates smaller entities from their larger counterparts in the industry. A noteworthy statistic from the UK underscores the magnitude of this disparity, where the top 100 out of 4,000 companies command a substantial 56% of the market research industry's total revenue, highlighting the concentration of market share among a select few (Ransbotham et al., 2016). Sustainable branding emerges as a potential game-changer, capable of introducing innovative frameworks rooted in cultural transformation, enabled by the synergy of big data analytics and business analytics. Remarkably, global corporate giants like Google, Tesla, and Microsoft have embarked on initiatives revolving around artificial intelligence geared toward sustainability-friendly systems, underscoring a resounding commitment to sustainable branding (Manzoor et al., 2021).

In light of these insights, it becomes evident that exploring the nexus between sustainable branding and big data analytics is not merely an academic pursuit but a pragmatic imperative. The ensuing sections of this research will delve into these relationships with a focus on sustainability within the market research industry,

drawing from past literature to illustrate the significance and relevance of this exploration.

2.4.2. Role of Big Data and Business Analytics in Sustainable Branding

This research examined the significant contribution of big data and business analytics in promoting sustainable branding for companies. By collecting and analysing large datasets, businesses were able to measure and analyse their environmental and social impact, identify areas for improvement in sustainability practices, and enhance customer engagement (El Hilali et al., 2021). The study also demonstrated how business analytics can be utilized to track the efficacy of sustainability initiatives over time and make data-driven decisions to optimize performance in this area.

The research presented in this research highlighted the crucial role of big data and business analytics in the business environment, emphasizing their relevance to sustainable branding. By leveraging data-driven insights, organizations can strengthen their commitment to sustainability and differentiate themselves from competitors, ultimately leading to long-term success and profitability (El Hilali et al., 2021).

This section elucidates the symbiotic relationship between big data, business analytics, and sustainable branding. It underscores the pivotal role played by these formidable tools in the modern business landscape, emphasizing their indispensable relevance in the pursuit of sustainable practices. As the research unfolds, we delve deeper into this transformative partnership, shedding light on the multifaceted dimensions of sustainability within the market research industry.

Through a synthesis of insights gleaned from previous literature, we paint a comprehensive picture of how big data and business analytics have emerged as linchpins in the realm of sustainable branding, reshaping businesses, and charting a course towards enduring success and profitability.

2.4.3. Linking Big Data Environment with Sustainable Branding in the Market Research Industry

In today's dynamic business landscape, where sustainability and ethical practices are at the forefront of corporate agendas, the role of technology, particularly big data, has become pivotal in shaping sustainable branding strategies. This section delves into the multifaceted interplay between the big data environment and sustainable branding, shedding light on its profound implications within the market research industry.

Amidst the digital revolution, businesses have recognized that harnessing the power of big data and technological advancements is instrumental in promoting better governance and transparency (Chen et al., 2021). Continuous monitoring and the identification of risk factors in the business environment have assumed paramount importance. This process, facilitated by the implementation of big data techniques, not only serves as a safeguard but also creates key performance indicators that bolster efficiency, governance, and legal compliance.

Sustainable branding, on the other hand, is the beacon guiding organizations towards ethical and responsible practices, with an unwavering focus on environmental and social sustainability. It champions the cause of aligning business objectives with societal well-being (Chen et al., 2021).

To thrive in this new paradigm, firms must consistently adapt their accounting standards and curricula to meet national and international business environment norms. Big data's entry into this realm offers a novel perspective. By identifying potential convergence points that balance operational costs, organizations can employ big data to enhance financial reporting, performance measurement, and various facets of supply chain finance (Ibrahim et al., 2021). These data-driven insights inform and inspire sustainability initiatives, igniting the transformational journey towards a robust sustainable brand image.

The influence of big data and sustainability practices extends beyond numbers and spreadsheets. It hinges on a complex web of factors, including management and leadership style, government policies, supplier integration, internal processes, and customer engagement (Raut et al., 2019). This intricate relationship plays a pivotal role in predicting the successful adoption of sustainable practices in manufacturing firms.

Within the internal ecosystem of a business, the impact of big data is palpable. Technological advancements have ushered in an era of data proliferation, necessitating the creation of performance matrices and process restructuring. Big data's capacity to catalyse corporate strategy within the organization cannot be overstated (Aversa et al., 2021a). It empowers decision-makers by unveiling previously unexplored resources, facilitating knowledge updates, and fostering a culture of innovation and agility. This, in turn, translates into enhanced sustainability performance.

Employee satisfaction is a cornerstone of sustainable branding. Big data's role in understanding employee efficiency and satisfaction levels is critical (Tomczak et al., 2018). By monitoring and regulating employees within a compliance-oriented

framework, big data ensures good governance and paves the way for a harmonious work environment.

The upheaval brought by the COVID-19 pandemic underscored the significance of big data in workforce performance. It expedited decision-making, reduced hierarchical bottlenecks, and imbued organizations with the agility needed to navigate the rapidly changing landscape (Rialti et al., 2018). This integration of big data into the business ecosystem not only boosts sustainability performance but also strengthens the foundation for a resolute sustainable brand image.

In the era of digital transformation, businesses are presented with a unique opportunity to bolster their efficiency. Big data is the catalyst that enables the creation of value within the shortest timeframe (Tambe, 2014). Through timely governance updates and dynamic pricing algorithms, companies enhance their credibility, foster innovation in socially responsible sustainability initiatives, and ensure transparency in their commitments (Mikalef et al., 2020).

Moreover, big data's role in curating and visualizing key performance indicators (KPIs) pertaining to sustainability and innovation becomes indispensable, especially for technology researchers in fields like sustainable mobility (Branco et al., 2021). As smart cities increasingly adopt green initiatives, the influence of big data on regulatory measures in the external business environment cannot be understated.

In the realm of customer-centricity, big data's contribution is equally transformative. By analyzing user-generated data from websites and employing advanced technologies like machine learning, businesses formulate data-driven strategies that enhance branding and improve overall practices (Min et al., 2021).

These data-driven insights resonate with socially conscious consumers and contribute to environmental and social progress.

In conclusion, the convergence of big data, sustainability, and sustainable branding is a phenomenon reshaping businesses' approach to governance, innovation, and social responsibility. By embedding sustainability at the core of their operations, organizations can not only thrive in the digital age but also forge an enduring sustainable brand image that resonates with consumers and society as a whole.

2.4.4. Leveraging Business Analytics for Sustainable Branding in the Market Research Industry

In today's fast-paced business landscape, where sustainability and data-driven insights are paramount, the role of business analytics has become a linchpin in shaping sustainable branding strategies within the market research industry. This section delves into the profound nexus between business analytics and sustainable branding, illuminating its substantial implications.

Business analytics has risen to prominence as a critical tool for businesses seeking to gain a competitive edge and enhance overall performance in the modern corporate arena (Bawack & Ahmad, 2021). This versatile discipline empowers organizations to not only gauge financial performance and manage risks but also delve into the realm of human resource analytics (Margherita, 2021). It aids in steering transformative change management initiatives like sustainability, which, in turn, boost employee engagement and workplace motivation.

In an era marked by the emergence of big data and artificial intelligence, business analytics has evolved into an indispensable facet of data science (Davenport & Malone, 2021). This evolution necessitates the hiring of specialized data analysts or scientists, pivotal for the seamless execution of analytics projects and the mitigation of change management challenges.

One of the most critical facets of business operations is the decision-making process. It demands a profound understanding and evaluation of myriad factors that impact performance. Yet, implementation can often be hampered by resource constraints, particularly financial ones (Chatterjee, Rana, & Dwivedi, 2021). Nevertheless, the judicious deployment of analytical tools and techniques can empower decision-makers in data-driven organizations to make informed choices expeditiously.

In the context of sustainability, business analytics takes on an even more pronounced role. By harnessing vast troves of data on energy consumption, waste management, and supply chain efficiency, organizations can significantly reduce their environmental footprint and enhance their sustainability practices (El Hilali et al., 2021). This commitment to sustainability fosters innovation, nurtures collaborations with stakeholders, and instills trust among customers who prioritize eco-conscious business practices.

Data analysts and consultants heavily rely on business analytics to decipher complex data landscapes, enhance decision-making, and propel data-driven organizations forward (Namvar et al., 2021). The COVID-19 pandemic further underscored the indispensability of business analytics, as it empowered managers to dissect business operations and bolster innovation capabilities for enhanced organizational agility (Wanasida & Purwanto, 2021). The workforce's increasing dependence on high-quality information derived from business analytics

enhances the credibility of these insights, ultimately affecting key performance indicators positively.

In the realm of market research, where structured and unstructured data often sprawl across geographically dispersed territories, data-driven decision-making emerges as a cornerstone (Bayrak, 2021). Business analytics enables proactive decision-making by extracting actionable insights from this vast data landscape.

Qualitative research methods, when integrated into branding and big data analyses, offer the advantage of delving deeper into the contextual intricacies of branding and data operations (Ramanathan et al., 2017). They facilitate the capture of subjective experiences, perceptions, and rich descriptions of behaviors, attitudes, and motivations. This deeper understanding proves invaluable in crafting effective branding strategies that resonate with consumers and in interpreting big data insights to inform decision-making (Kim & Ko, 2012).

Business analytics' sphere of influence extends to the external business environment. With the advent of cost-effective technologies like Hadoop and cloud storage platforms, businesses can seamlessly access and analyze data from clients and customers, leveraging automated service customization and big data analytics (Katke & Katke, 2021). This technological shift has democratized business analytics, resulting in self-learning algorithms that adapt to changing business environments, unlocking the potential of unexplored resources (Al-Qaralleh & Atan, 2021).

Efficiency in data gathering from social media platforms and the internet has empowered businesses to merge these insights with operational data, enhancing predictive accuracy (Baron, 2020). The amalgamation of design thinking and

business analytics has invigorated sales performance, customer satisfaction, and competitiveness (Scherer et al., 2016).

Furthermore, businesses have leveraged derived data to create value-added services, thus amplifying the impact of gathered data in the external business environment. User-friendly data visualization tools have empowered end-users to make the most of data collection and exploitation processes (Amyrotos et al., 2021).

In summary, business analytics stands as a critical asset in measuring finance, risk management, and performance enhancement, transcending into the realm of human resource analytics. It serves as a beacon guiding data-driven decision-makers in identifying trends that may impact both internal and external environments. Despite potential implementation challenges stemming from resource constraints, advancements in technology have enabled businesses to draw insights from diverse sources and take proactive steps based on accurate analysis. This integration of business analytics and sustainability is a potent catalyst for forging a sustainable brand image, thereby aligning business objectives with societal well-being and environmental responsibility.

2.5. Market Research Industry and Sustainable Branding

In recent years, sustainable branding had become a hot topic in the business world as more and more consumers had become interested in environmentally and socially responsible products and services (Ozturkcan, 2023). To meet this demand, companies had adopted sustainable practices and promoted their commitment to sustainability through their branding strategies. However, in order to effectively create sustainable brands, companies had conducted thorough

market research to understand the needs and preferences of consumers (Dessart & Standaert, 2023).

The market research industry had played a critical role in helping companies develop sustainable branding strategies. Market research had involved collecting and analysing data about consumers, competitors, and other market factors that could affect a company's success. This information had been crucial for businesses to make informed decisions about their branding strategies, product development, pricing, and marketing campaigns (Kreutzer, 2023).

One important aspect of sustainable branding had been understanding consumer attitudes towards sustainability. Market research had also helped companies identify opportunities to differentiate themselves from competitors through sustainable branding. By understanding what aspects of sustainability had been most important to consumers and which messaging had resonated with them, companies had been able to create a unique brand identity that had set them apart from the competition (Kreutzer, 2023). For example, Patagonia had built a strong brand around its commitment to environmental sustainability and ethical sourcing, which had helped it stand out in the crowded outdoor apparel market (Lee et al., 2017).

Market research had guided sustainable branding efforts by identifying consumer attitudes and preferences towards sustainability, as well as opportunities for innovation and differentiation, especially during the pandemic. Market research had informed sustainable branding efforts by identifying which sustainability attributes had been most important to consumers and how those attributes could be effectively communicated through branding (Grubor & Milovanov, 2017). Market research had helped brands develop a sustainable branding strategy that had resonated with consumers and had set them apart from competitors.

Sustainable branding had involved emphasizing the importance of a dynamic and iterative value generation process to sustain data-driven customer engagement. A study had suggested that shared experience perception configuration had been essential for sustainability in engagement, meaning customers should have had a clear idea of what they could expect from engaging with the brand. Furthermore, resource sharing and co-production platforms had been critical components of successful engagement strategies, as they had allowed for valuable insights to be captured and stronger relationships to be built with customers (Kunz et al., 2017).

The impact of perceived brand equity on brand profitability, sales volume, and customer value had been investigated through regression analysis on Austrian organizations. The results had indicated that perceived quality, brand loyalty, and brand awareness had strongly influenced firm performance and customer willingness to buy (Baldauf et al., 2003). Table 5 has shown the key findings that underscored the significance of sustainable branding strategies and market research.

Table 2.5: Review of Literature for Market Research Industry and Sustainability

Author	Context	Findings
Ozturkcan, 2023	Sustainable branding is important as consumers are interested in socially and environmentally responsible products.	Companies must conduct thorough market research to understand consumer needs and preferences for effective sustainable branding.
Dessart & Standaert, 2023	Market research is critical for businesses' success by providing data on consumers, competitors, and market factors.	Data from market research informs branding strategies, product development, pricing, and marketing campaigns.
Kreutzer, 2023	Market research helps companies understand consumer attitudes towards sustainability, identify differentiation opportunities, and measure the effectiveness of their sustainable branding efforts.	Patagonia has built a strong brand around its commitment to environmental sustainability and ethical sourcing, which has helped it stand out in the crowded outdoor apparel market.
Grubor & Milovanov, 2017a	Market research can guide sustainable branding efforts by identifying consumer attitudes and preferences towards sustainability, as well as opportunities for innovation and differentiation, especially during the pandemic.	Market research firms are providing valuable insights, as well as identifying emerging opportunities for growth.
Tapaninaho & Heikkinen, 2022	Sustainable branding is becoming increasingly important for businesses as consumers place more value on environmentally and socially responsible practices.	Market research firms can provide valuable insights into drivers and trends shaping the sustainable branding market, allowing businesses to develop effective strategies that enable them to outperform their competitors.

Erevelles et al., 2016	Market research firms can help businesses benchmark their sustainable branding performance against key competitors, analyse how they communicate their sustainability efforts to consumers, and understand consumer perceptions and preferences related to sustainable branding.	By leveraging this information, businesses can develop strategies to improve their own sustainable branding performance and better communicate their sustainability efforts to consumers in a way that resonates with their target audience.
Acharya et al., 2018	The continued growth of the market research industry reflects the importance of understanding consumer behaviour and market trends in today's competitive business landscape.	The size of the market research industry is expected to reach a value of USD 87.5 billion by 2023, growing at a CAGR of 3.8% during the forecast period (2017-2023).
George & SCHILLEBEECKX, 2021	Market research companies advocate for sustainability in the digital world and work on evidence-based information.	Customers' awareness of sustainability has increased globally during the pandemic, leading to more people thinking about sustainability.
Irimies, 2012	Branding research is one of the main areas of the market research industry.	Market research companies compete to help their clients identify and target their audience for building a brand image and identity.
Khandelwal et al., 2021	Many organizations have already started working on sustainability and green marketing goals.	Sustainable branding aligns internal and external aspects of branding, leading to outcomes such as understanding, identification, commitment, loyalty, and citizenship behaviours.
Barros-Arrieta & García-Cali, 2021	Sustainable branding can help businesses build a brand philosophy and image in the minds of employees with aspects of sustainable development in the industry.	Incorporating sustainable development goals can lead to high outcomes such as understanding, identification, commitment, loyalty, and citizenship behaviours.

In addition to understanding consumer attitudes and identifying differentiation opportunities, market research could also help companies measure the effectiveness of their sustainable branding efforts. By tracking key performance indicators such as brand awareness, customer loyalty, and sales (Baldauf et al., 2003), companies could evaluate the impact of their sustainable branding initiatives and make adjustments as needed.

The market research industry played an increasingly critical role in helping businesses navigate the impact of the coronavirus pandemic. Market research could play a crucial role in guiding sustainable branding efforts by identifying consumer attitudes and preferences towards sustainability, as well as opportunities for innovation and differentiation (Grubor & Milovanov, 2017b). Market research firms provided valuable insights, especially on consumer attitudes, into how the pandemic affected various industries and regions, as well as identifying emerging opportunities for growth (Jones & Comfort, 2020).

Market research firms created regional and country strategies based on local data and analysis to help businesses understand how the pandemic affected their specific markets (Researchliveindustryreport.2019). Market research could help businesses develop sustainable branding strategies by providing insights into consumer behaviour and market conditions, allowing them to make informed decisions about where to invest resources and how to adapt to changing conditions. By leveraging data and analysis, businesses could develop strategies that were aligned with their sustainability goals and created long-term value for their stakeholders, while also reducing their environmental impact and building a positive brand image (Quiroz-Niño, 2019).

Market research also had the ability to gather, analyse, and leverage data for the purpose of making informed decisions that drove tangible business outcomes

(Davenport et al., 2001). By understanding consumer behaviour and market trends related to sustainability, these firms could help businesses target areas where there was strong demand for eco-friendly or socially responsible products or services. This not only allowed companies to capitalize on potential growth opportunities but also helped them build a sustainable brand image by demonstrating their commitment to environmental and social responsibility (Arbouw et al., 2019).

Sustainable branding had become increasingly important for businesses as consumers had placed more value on environmentally and socially responsible practices (Tapaninaho & Heikkinen, 2022). Market research firms had provided valuable insights into the drivers and trends shaping the sustainable branding market, allowing businesses to develop effective strategies that enabled them to outperform their competitors (Grubor & Milovanov, 2017c). By leveraging forecast data and market research insights (Kong & Artman, 2021), businesses had stayed ahead of the curve and positioned themselves as leaders in sustainable branding.

Market research firms had also helped businesses understand their customers better by providing the latest market research findings (Researchliveindustryreport.2023). Market research had informed sustainable branding efforts by helping businesses gain a deeper understanding of their customers' sustainability preferences and behaviours (Mihardjo et al., 2019). By incorporating this information into their branding strategy, businesses had better appeal to environmentally conscious consumers and positioned themselves as socially responsible and sustainable brands. This had led to increased customer loyalty, differentiation from competitors, and ultimately, long-term business success (van Riel et al., 2021).

Market research firms were able to help businesses benchmark their sustainable branding performance against key competitors in order to identify areas where they may have been falling behind. This included assessing the sustainability practices of competitors, analyzing how they communicated their sustainability efforts to consumers, and understanding consumer perceptions and preferences related to sustainable branding (Erevelles et al., 2016). By leveraging this information, businesses were able to develop strategies to improve their own sustainable branding performance and better communicate their sustainability efforts to consumers in a way that resonated with their target audience (Moreno et al., 2011).

Market research firms were able to leverage the relationships between key data sets to help businesses understand consumer behaviour, preferences, and attitudes towards sustainability (Erevelles et al., 2016). By analyzing multiple data sets together, firms were able to identify trends and opportunities for sustainable branding that aligned with consumer values and priorities. For example, research data may have indicated a growing demand for eco-friendly products or a preference for companies with strong sustainability practices (Tapaninaho & Heikkinen, 2022). By understanding these insights, businesses were able to develop more effective sustainable branding strategies that resonated with their target audience and drove long-term success.

The market research industry also provided valuable insights for businesses looking to develop sustainable branding strategies. By effectively understanding consumer attitudes towards sustainability, companies were able to position themselves as leaders in environmentally responsible practices and create brands that resonated with socially conscious consumers (Erevelles et al., 2016). Market research helped identify key sustainability issues that resonated with target audiences and measured the effectiveness of sustainability efforts. By integrating

sustainability into brand messaging and operations, companies were ultimately able to build brand trust and loyalty, while also contributing to a more sustainable future (Alwi et al., 2017). As such, the market research industry played an important role in driving sustainable business practices and promoting long-term growth.

2.5.1. Size of the Market Research Industry

The market research industry had been consistently growing over the past decade with a steady increase in demand for its services. According to a report by Market Research Future (<https://www.marketresearchfuture.com>, 2023), the global market research industry was expected to reach a value of USD 87.5 billion by 2023, growing at a CAGR of 3.8% during the forecast period (2017-2023).

North America and Europe were the largest markets for market research, accounting for almost two-thirds of the global market share. However, the Asia-Pacific region was expected to witness the highest growth rate during the forecast period due to increasing investments in emerging economies such as India and China (Company Filings Analytics Trends & Signals, 2023).

The industry had also seen changes in terms of the types of research conducted and the methods used. Traditional methods such as surveys and focus groups were increasingly being complemented or replaced by newer methods such as social media analytics and big data analysis (Researchliveindustryreport, 2022). This shift towards new methods had led to an increased demand for specialized skills and expertise within the industry.

Overall, the size of the market research industry reflected the importance of understanding consumer behaviour and market trends in today's competitive business landscape (Company Filings Analytics Trends & Signals, 2023). Its continued growth was a testament to the value and impact of data-driven insights on business decision-making that could be developed through sustainable branding (Acharya et al., 2018).

2.5.2. Sustainability in Market Research Industry

The advocates of sustainability in the digital world were mostly companies from the market research industry who worked on evidence-based information. Surveys conducted by market leaders in the digital world, such as Accenture, Kantar, Boston Consulting Group, and IPSOS Mori, suggested that customers' awareness of sustainability had increased globally during the pandemic (George & SCHILLEBEECKX, 2021). With more people working from home due to the pandemic, there was a significant shift in health habits, which ultimately started at home and led to customers thinking about sustainability (Crittenden et al., 2011).

The scope of sustainable branding had broadened with the implementation of sustainability factors in organizations. The need to promote sustainability factors in different sectors of business operations had led to choosing clients and suppliers who had embraced sustainability as one of their core factors of business. This had paved the way for businesses to brand themselves as sustainability-friendly companies to ensure they remained one of the sustainability promoters proactively.

2.5.3. Branding in the Market Research Industry

The market research industry was considered the central processing unit of all branding activities as it was related to the business of evidence. One of the main areas of the market research industry was branding research. The concept of branding came from the Anglo-Saxon term which combined the creation, recreation, and consolidation of a brand by connecting its product or services in a relationship with its consumer. Branding and market research were interlinked from their inception. While the market research industry competed to help its clients in identifying and targeting its audience for building a brand image and identity (Irimies, 2012), it was clear that the market research industry had not done enough branding for itself to project itself as a brand.

Personalized communication and branding could create a more emotional connection between the brand and the customer by tailoring messages and experiences to individual preferences and needs. This could lead to increased brand trust and advocacy, and ultimately drive business growth (Nyagadza et al., 2020). Sustainable branding required a combination of personalized communication and branding that could significantly enhance customer engagement, loyalty, and purchase behaviour.

Even with the evolution of technological advancements in the UK industry, the industry remained dormant even though it was the pillar of every research advancement in the field. Branding was one of those areas where traditionally, huge marketing budgets had to be allotted. For the market research companies, it was how they integrated their performing work with their clients' brand culture, and not about finance. From the history of the post-World War marketing sector, it was clear that a new revolution of branding culture would be welcomed after

this pandemic (Davis, 2017). With more sustainability awareness in global society during the pandemic, the keyword would now be ‘sustainable branding’.

The idea of sustainability development goals of organizational giants like the United Nations had already started to make immense changes globally (Assembly, 2015). The market research industry could be one of the major catalysts of this change globally and especially in the United Kingdom, where companies had already started to work on sustainability and green marketing goals. A global awareness of sustainability after the pandemic had generated a concern among people and organizations to work towards society and environment guidelines given by the government. Studies on green branding gave us immense evidence that organizations had already started working on sustainability for the last decade (Khandelwal et al., 2021).

Some consumers may have connected more with an emotionally driven brand identity, while others may have preferred a more rational approach. It all depended on what values and beliefs the brand embodied and how well it spoke to each individual's unique feelings and experiences through personalized communications (Alvarado-Karste & Guzmán, 2020). The concept of sustainable branding in market research helped to align the internal and external aspects of branding, which could have high outcomes like understanding, identification, commitment, loyalty, and citizenship behaviours (Barros-Arrieta & García-Cali, 2021), which would help to build a brand philosophy and brand image in the minds of employees with the aspects of sustainable development in the industry.

2.6. Theoretical Framework

Theoretical framework was the backbone of this research that guided the researcher in understanding and analysing the phenomenon under investigation. This section presented a comprehensive review of the theories used in the study to promote competitive advantage in the business environment through embedding sustainability. The chosen theories were carefully selected to ensure harmony and acceptance in the global business environment for gaining a competitive edge through sustainable branding. These included the Theory of Corporate Sustainability, Theory of Sustainable Development, Theory of Branding, Human-to-Human (H2H) Aspect Theory, Resource-Based View Theory, and Stakeholder Theory. Tailoring these theories helped to gain competitive advantage with the latest concepts and technology, which required adequate academic and practitioner level knowledge in the industry. This study aimed to connect marketing concepts with technology to embed sustainability and create an impact through identified performance indicators from the business environment for competitive advantage.

The research demonstrated a wealth of theories that helped to promote the concept of sustainable branding and create a competitive advantage in the business environment. Tailoring the theories for gaining a competitive advantage with the latest concepts and technology required adequate academic and practitioner-level knowledge in the industry. Studies had shown that sustainability was relative, dynamic, and normative as people from diverse backgrounds had different opinions about a concept and they tried their best to contest their differences (Johnston, 2014). Therefore, theories were chosen carefully to ensure the harmony of acceptance in the global business environment.

There were numerous methodologies used in every business environment used by business owners, consultants, academics, and even entrepreneurs, but there were no standard methodologies for embedding sustainability into their business environment (Sanchez-Planelles et al., 2021). In order to avoid the indifferences in the internal and external environment, an efficient stakeholder orientation was necessary as a part of sustainability management, which could be possible through connecting the theory of branding. Branding management was used to create a stakeholder orientation for the acceptance of the framework in the internal and external environment by projecting the competitive advantage through the brand image through embedding sustainability in the business design (Kamkankaew, 2021).

The tailoring of theoretical constructs of this research was focused to ensure that the research objectives ensured the competitive advantage. This was achieved through combining knowledge-based resources with the resources of the internal and external environment of the business (Pereira & Bamel, 2021). The research also used the latest theories in marketing to ensure efficient communication of the stakeholders of the business environment regarding a human-to-human (H2H) aspect rather than only focusing on the traditional B2B or B2H concepts.

An effective cause-effect relationship in identifying indicators to gain a competitive edge using technology was possible through the H2H marketing model. This helped to pave the way for regaining importance and creating value through innovation in the business environment (Kotler et al., 2021a). In this regard, connecting the marketing concepts with technology could help in embedding sustainability and thereby creating an impact through the identified performance indicators from the business environment for a competitive advantage. By establishing causality relationships between sustainable variables, researchers could identify effective actions for managers to achieve desired

outcomes and enhance their decision-making abilities (Sanchez-Planelles et al., 2021). Therefore, creating a theoretical framework for sustainable branding should involve exploring the factors that drove successful adoption of sustainable practices and assessing their impact on brand perception and consumer behaviour.

Several researchers proposed the importance of creating a theoretical framework for achieving sustainable branding by integrating the brand and supply chain perspectives (Saviolo & Borney, 2021). However, they were not completely successful in achieving a framework for sustainable branding that targeted and selected sustainability goals or sustainable development goals according to the industry or organizational requirements. Other researchers argued for the importance of a theoretical framework that combined organizational culture and information processing attributes to enhance a company's ability to analyse information and make sound decisions regarding financial issues in the context of a supply chain, especially promoting a data-driven culture (Yu et al., 2021).

A recent conceptual framework for digital sustainability, sustainable digitalization, and digitainability highlighted the importance of combining sustainability with digitalization to generate growth opportunities while addressing potential negative effects. This underscored the relevance of sustainable design concepts in linking sustainability initiatives to core business activities and necessitated dynamic transformation and reconfiguration of innovation processes to profit from the interdependencies between digitalization and sustainability (Lichtenthaler, 2021). Therefore, there was a pressing need for developing a framework for sustainable branding that incorporated big data and analytics to capitalize on these interdependencies and promote sustainable practices in the business landscape.

Table 2.6: Review of Literature: Theoretical Framework used for Sustainable Branding

Theory	Author	Context	Findings
Theory of Corporate Sustainability	Hansen & Schrøder (2018)	Sustainable branding enables organizations to communicate their commitment to sustainability to stakeholders through branding and marketing activities, which can positively impact consumer behaviour.	Sustainable branding creates a positive brand image that aligns with the organization's sustainability objectives and values, improving brand reputation, attracting new customers, and generating positive environmental and social impacts.
Theory of Corporate Sustainability	Bolton (2021) Kantabutra & Ketprapakorn (2020)	Corporate sustainability is usually grounded in concepts of sustainable development, CSR, stakeholder theory, or accountability theories. Any corporate activities that contribute to the stakeholder will have a positive impact on promoting corporate sustainability. Integrating sustainable branding into the theory of corporate sustainability can create a business impact by exploring marketing activities that can create performance.	Integrating sustainable branding and corporate sustainability provides an opportunity for organizations to develop more innovative and effective strategies for promoting sustainability while also achieving business objectives.
Theory of Sustainable Development	Shi et al. (2019)	The theory of sustainable development evolved from the sustainability theory in the 1980s, focusing on the environmental, economic, and social agenda of government and companies through coordinated development. Sustainable branding can help organizations communicate their commitment towards sustainable development.	Sustainable branding can help organizations showcase their sustainable initiatives and build a positive reputation, differentiate themselves from competitors, and appeal to consumers who prioritize sustainability, creating opportunities with new combinations to explore resources that can be fruitful in the environment in which it is applied.

Theory of Sustainable Development	Colglazier (2015), Elliott (2012), Miola & Schiltz (2019), Yiu & Saner (2017)	The United Nations' 'Agenda 2030' includes 17 sustainable development goals with 169 indicators with specific codes making it easy to embed sustainability into organizations with specific goals that are for-profit or non-profit seeking to promote the ultimate goal of a new worldview.	Sustainable branding enables progress tracking towards SDGs and builds stakeholder trust. Workplace sustainability fosters partnerships for community development, catalysing business diplomacy.
Theory of Branding	Lehner & Halliday (2014b)	Sustainable branding should be considered a welcome ingredient by firms that welcome sustainability for creating engagement and innovation in their business environment, gaining a competitive advantage.	Sustainable branding helps focus attention on promoting the brand value through the business environment so that brand equity is delivered with ease into the business environment.
Theory of Branding	(Yu et al., 2021)	Sustainable brands for resource allocation and capacity building in response to the business environment, leveraging big data and business analytics.	Highlighting the importance of a theoretical model that combines organizational culture and information processing theory to enhance a company's ability to analyse information and make sound decisions related to financial issues in a supply chain.
Theory of Branding	Nyagadza et al. (2020)	Branding is not just a theory used in the external environment of business to increase the customer base, but it is also a major driver in the internal environment that plays an important role in the behaviour of its internal stakeholders in terms of brand perception.	Branding helps create favourable conditions for the implementation of organizational change, which is done through brand orientation, taking into consideration the internal and external factors that create a brand experience.

Theory of Branding	Gligor et al. (2021)	Sustainable branding has high potential for co-creation through interaction and influencing the stakeholders of the business environment.	The theory of branding can act as an effective tool for co-creation, thereby creating an ideal platform for exploring new insights on the feelings of the stakeholders in the business environment.
Theory of Branding	Keller (2021)	With technological advancements, the concept of branding has achieved a new high from consumers and marketers with the drastic change that occurred due to the Covid-19 pandemic.	Businesses have to focus on sustainable branding as a result of the uncertainties caused that can create opportunities, which can be identity-oriented and identity-based, depending upon the internal and external environment of the business.
Theory of Branding	Kamkankaew (2021)	Sustainable brand management can be a catalyst in embedding sustainability for creating a competitive edge as part of creating and capturing value that can lead to a sustainability brand.	Sustainable branding through umbrella branding can be used as an industry while entering a market segment for earning profits while branding together (umbrella branding) as an industry than branding individually.
Human-to-Human (H2H) aspect theory	Kotler et al. (2020)	The H2H marketing approach emphasizes collaboration and co-creation between marketing and technology departments to develop sustainable branding strategies that align with organizational values and principles.	Incorporating sustainable branding into the H2H model helps organizations gain a competitive advantage in the disruptive business environment by connecting with stakeholders and gaining insights from them.

Resource-Based View theory	Alvarez & Barney (2017), Corte et al. (2017), Gao et al. (2018), Sony (2019), Arbelo et al. (2021), Bag et al. (2021)	Resource-Based View theory is applied to identify unique resources that support sustainability, such as renewable energy sources or eco-friendly production methods, creating a differentiated brand that is difficult for competitors to replicate. By integrating sustainability into a firm's operations, the firm can improve its overall performance and efficiency, further enhancing its competitive position.	The resource-based view theory correlates the resources of the business with the performance factors and accommodates new business initiatives. Additionally, it can be used in any dynamic business environment, like IoT and big data analytics, Industry 4.0, and exploring sustainability in a dynamic environment.
Stakeholder theory	Freeman (2010), Hörisch et al. (2014), Carroll & Shabana (2010), Friedman & Miles (2006), Gillan & Starks (2007), Rexhepi et al. (2018)	Stakeholder theory considers the interests of all parties impacted by an organization, including employees, customers, suppliers, and shareholders. Sustainable branding can be seen as a practical application of stakeholder theory, where companies aim to create long-term value for all stakeholders by adopting sustainable practices and communicating their commitments transparently.	Stakeholder theory helps understand how sustainable branding affects different stakeholders. Responsible business practices can support sustainable brands through investment decisions, improving reputation, customer loyalty, employee satisfaction, and financial performance in the long term.

2.6.1. Theory of Corporate Sustainability

Sustainable branding is a critical aspect of corporate sustainability, as it enabled organizations to communicate their commitment to sustainability to stakeholders through branding and marketing activities. Sustainable branding involved creating a brand image that aligned with the organization's sustainability objectives and values, which could positively impact consumer behaviour (Hansen & Schrøder, 2018).

The theoretical concept of sustainability as a science discipline involved an understanding between nature and society, which drew attention to the knowledge of natural and social scientists as well as disciplines in humanities, engineering, law, and medicine to understand the relevance of sustainability science (Ziegler & Ott, 2011). The importance of studying sustainability trends and its evolution through marketing efforts needed to be given high importance as a platform for change. Organizations that had embedded sustainability in their systems had gained improved performance. Sustainability also paved the way for exploring marketing activities that could create performance (Bolton, 2021).

Corporate sustainability dealt with theorizing the business responsibilities from the internal and external environment of the corporation with short-term and long-term perspectives. There was no commonly accepted theory of corporate sustainability as it usually acted as an interlinking theory in sustainability initiatives of a corporation for creating a business impact. It was usually grounded in concepts of sustainable development, CSR, stakeholder theory, or accountability theories. It was also noted that any corporate activities that contributed to the stakeholder had a positive impact on promoting corporate sustainability.

The theory of branding could be integrated using the theory of corporate sustainability, identifying highly competitive markets for functional and emotional benefits that could add to brand equity through stakeholder satisfaction (Kantabutra & Ketprapakorn, 2020). By integrating sustainable branding into the theory of corporate sustainability, organizations could create a business impact by improving brand reputation, attracting new customers, and generating positive environmental and social impacts. The integration of sustainable branding and corporate sustainability provided an opportunity for organizations to develop more innovative and effective strategies for promoting sustainability while also achieving business objectives.

2.6.2. Theory of Sustainable Development

The theory of sustainable development gained attention in the 1980s and evolved from the sustainability theory, which focused on the coordinated development of government and companies' environmental, economic, and social agendas (Shi et al., 2019). Sustainable branding helped organizations communicate their commitment to sustainable development. The literature field started to study the importance of SDGs for profit-seeking organizations, which was still an under-researched topic, and how a combination of sustainable development goals with marketing efforts could create a competitive advantage through sustainability (Bolton, 2021). Sustainable branding was one of the key factors in creating a positive brand image for organizations. Sustainability is a broad theory that restricted businesses from implementing it as a whole in their business environment.

Separating the theory of sustainable development from sustainability helped organizations to have more clarity on its usage in the business for gaining a competitive advantage. This clarity was delivered through strong ethical, moral,

and altruistic characteristics, with reasons and explanations. Sustainable branding helped organizations showcase their sustainable initiatives and build a positive reputation. As society did not operate in a one-size-fits-all arithmetic (Pohoată et al., 2020), it was essential to have a detailed approach for embedding it in the business environment with specific indicators that could enhance developing a competitive advantage by exploring resources. Sustainable development helped systematize knowledge that proved its consistency through conceptual, logical, and methodological approaches. Sustainable branding helped organizations differentiate themselves from competitors and appeal to consumers who prioritized sustainability. This helped create opportunities with new combinations to explore resources that could be fruitful in the environment in which it was applied, helpful for new knowledge creation (Grunwald, 2014).

The United Nations took the theory to a global level, which reached peak recognition in its sustainability initiatives, with the recent one being 'Agenda 2030,' including 17 sustainable development goals with 169 indicators with specific codes, making it easy to embed sustainability into organizations with specific goals that were for-profit or non-profit seeking to promote the ultimate goal of a new worldview (Colglazier, 2015). Sustainable branding helped organizations align with the UN's sustainable development goals and communicate their commitment towards achieving them. This was a clear indication that the sustainable development concept had global acceptance from international institutions and governments (Elliott, 2012).

The concept of sustainable development through 'Agenda 2030' was holistic in nature, making it a key element for implementation and achieving SDG performance. It also had the potential to become an analysis tool for achieving sustainable performance by ideally selecting the indicators of change from its framework (Miola & Schiltz, 2019). Sustainable branding helped organizations

track and report their progress towards achieving the SDGs and build trust with stakeholders. The concept had high regard for its inclination towards civil society, which was the primary factor in the survival of business. Sustainable development in the workplace helped collect more information from the business environment and could be used for developmental partnerships through community development for internal and external stakeholders of business, thereby acting as a catalyst for putting business diplomacy into practice (Yiu & Saner, 2017). Sustainable branding helped organizations engage with stakeholders and demonstrate their commitment towards sustainable development.

2.6.3. Theory of Branding

The role of branding in creating a sustainable market was a prime theory for creating value during the Covid-19 pandemic situation. Firms that prioritized sustainability considered sustainable branding an essential ingredient for creating engagement, innovation, and gaining a competitive advantage (Lehner & Halliday, 2014b). Branding was not solely a theory to increase the customer base in the external environment of business, but it was also a major driver in the internal environment that played a crucial role in the behaviour of internal stakeholders in terms of brand perception (Nyagadza et al., 2020). The theory of branding focused on promoting brand value through the business environment, allowing for the easy delivery of brand equity.

Branding created favourable conditions for implementing organizational change, which was one of the top attributes of sustainable branding in business. Brand orientation took into consideration internal and external factors that shaped a brand experience (Barros-Arrieta & García-Cali, 2020). Researchers explored opportunities for using sustainable branding in the technology sector, specifically

in artificial intelligence, as it helped overcome practical challenges within B2B relationships in the data-driven industry (Gligor et al., 2021).

Sustainable branding had high potential for co-creation through interaction and influencing stakeholders in the business environment. The theory of branding served as an effective tool for co-creation, creating an ideal platform for exploring new insights into the feelings of stakeholders in the business environment (Sarasvuo et al., 2021). Forecasting the future of sustainable brands was essential for academic researchers and businesses to allocate resources and strengthen their capacity to respond to the business environment through big data and business analytics (Yu et al., 2021).

With technological advancements, the concept of branding had achieved new heights from consumers and marketers due to the drastic changes brought by the Covid-19 pandemic (Keller, 2021). Businesses had to focus on sustainable branding due to the uncertainties that arose and create opportunities that could be identity-oriented and identity-based, depending on the internal and external environment of the business. Sustainable brand management was a catalyst in embedding sustainability for creating a competitive edge in creating and capturing value that led to a sustainability brand (Kamkankaew, 2021). The potential of sustainable branding through umbrella branding could be used as an industry when entering a market segment to earn profits while branding together (umbrella branding) instead of individually (Jungbauer & Schmid, 2021).

2.6.4. Human-to-Human (H2H) Aspect Theory

The Human-to-Human (H2H) aspect of marketing became crucial in the disruptive business environment of the past few years, where advanced technologies could be used to gain a competitive advantage. The H2H marketing

approach was particularly relevant for building sustainable branding for organizations. By co-creating with the technology department, the marketing department could use the H2H model to create a human-centric approach towards sustainability. This involved identifying and acting on insights from both internal and external environments, aligning sustainable branding strategies with organizational values and principles.

To establish the need for collaboration between marketing and technology departments, the H2H model emphasized the importance of early innovation stages, moving from a human mindset to strategic marketing management, and finally to operational marketing that created value in the business environment (Kotler et al., 2020). Through the H2H model, brand management could develop a holistic and consistent brand environment that promoted sustainability at regional, national, or international levels. Incorporating sustainable branding into the H2H model helped organizations gain a competitive advantage in the disruptive business environment by connecting with stakeholders and gaining insights from them.

The H2H model recognized the importance of technology in shaping human behaviour and creating maximum performance from the built environment. However, it also emphasized the importance of retaining a human-centric approach, even as technological advancements continued to shape the future (Kotler et al., 2020). The capacity of the marketing model to connect with brand management made H2H an attractive theory for researchers and academics.

In practice, the H2H model allowed businesses to gain insights from the business environment and develop sustainable branding strategies through collaboration and co-creation with stakeholders. By addressing opportunities and challenges related to sustainability, organizations could establish themselves as leaders in

sustainable branding, attracting socially responsible consumers who prioritized sustainability (Kotler et al., 2021). Making changes according to the collaboration model used in the H2H approach through the technology environment could have a high impact on creating a sustainable business environment.

In summary, the H2H marketing approach was highly relevant in the disruptive business environment of the past few years. By incorporating sustainable branding into the H2H model, organizations could establish themselves as leaders in sustainable practices and attract socially responsible consumers. Collaboration and co-creation between marketing and technology departments were crucial for developing sustainable branding strategies that aligned with organizational values and principles (Kunz et al., 2017).

2.6.5. Resource-Based View Theory

The Resource-Based View (RBV) theory was primarily applied in the theory for its capacity to identify competitive advantage from the business environment. Sustainable branding could be connected with the RBV theory by utilizing the firm's resources and capabilities to develop a sustainable competitive advantage. By identifying and developing unique resources that supported sustainability, such as renewable energy sources or eco-friendly production methods, a firm could create a differentiated brand that was difficult for competitors to replicate. This approach aligned with the core principles of the RBV theory, which emphasized the importance of unique resources and capabilities in creating competitive advantage (Sony, 2019).

Identifying factors for creating key performance was primarily used to identify the need for value creation, which implied greater efficiency (Alvarez & Barney, 2017). The role of the RBV theory as the connecting link between marketing

theories and competitive edge had been studied by many scholars in the field of marketing and strategy. The capacity of the RBV theory to link with other theories helped to explore the dynamic capabilities of a firm. This helped to integrate unexplored resources and gain a competitive advantage from the business environment (Corte et al., 2017).

The RBV theory is considered one of the most popular paradigms used by scholars and practitioners for identifying a competitive edge. It could accommodate new business initiatives when the firm was not able to achieve a competitive advantage due to changes in the dynamic business environment. Its capacity to integrate with business improvement initiatives was widely renowned, especially in the operations management of modern firms (Sony, 2019). The RBV theory had the capacity to connect the brand and its resources for improving its strategic position in gaining a competitive advantage. This was done by developing the brand resources and stakeholder relationships through the business environment, making it difficult for competitors to emulate and thereby creating a competitive edge (Gao et al., 2018).

Additionally, by integrating sustainability into a firm's operations, the firm could improve its overall performance and efficiency, further enhancing its competitive position. Overall, the RBV theory could be a valuable framework for firms seeking to develop sustainable branding strategies that leveraged their unique resources and capabilities. The most widely used theory in strategic management is the RBV theory for its correlation between the resources of the business and the performance factors. Combining other theories with the RBV theory is well-known for creating a competitive advantage, especially theories or initiatives that focused on performance management such as profit efficiency in the business environment (Arbelo et al., 2021). The capacity of the RBV to accommodate the resources and capabilities in its framework to identify a competitive advantage

could be used in any dynamic business environment, such as the Internet of Things and big data analytics. It was also adopted in Industry 4.0 and for exploring sustainability in a dynamic environment (Bag et al., 2021).

2.6.6. Stakeholder Theory

Stakeholder theory was a managerial approach that considered the interests of all parties impacted by an organization, including employees, customers, suppliers, and shareholders. This theory posited that an organization's success ultimately depended on its ability to satisfy the needs and expectations of these stakeholders (Freeman, 2010). The significance of implementing stakeholder theory in sustainability research was emphasized in several studies that examined its potential contributions towards achieving a sustainable future (Hörisch et al., 2014).

In recent years, stakeholder theory gained renewed attention in both academic and managerial circles, particularly regarding sustainability and corporate social responsibility (CSR) as key components of stakeholder management (Carroll & Shabana, 2010). Scholars argued that companies had to go beyond maximizing shareholder value and take into account the broader societal impacts of their actions (Friedman & Miles, 2006).

Another trend was the growing recognition of the role of institutional investors in promoting stakeholder-oriented governance practices (Gillan & Starks, 2007). These investors, holding large blocks of shares in public companies, could use their influence to advocate for responsible business practices and hold management accountable for meeting stakeholder expectations.

Stakeholder theory continued to evolve and adapt to changing business environments and societal expectations, remaining a valuable framework for understanding the complex relationships between organizations and their various stakeholders in sustainability research.

Sustainable branding, a strategic approach to building brand value and reputation, incorporated sustainability principles into an organization's products, services, and operations. This involved communicating the company's commitment to sustainability transparently to all stakeholders, including customers, employees, investors, and communities (Rexhepi et al., 2018). Both stakeholder theory and sustainable branding emphasized the importance of considering the interests and expectations of all stakeholders in business decision-making.

Sustainable branding could be seen as a practical application of stakeholder theory, where companies aimed to create long-term value for all stakeholders by adopting sustainable practices and transparently communicating their commitments. Moreover, stakeholder-oriented governance practices that promoted responsible business practices could contribute to the development and implementation of sustainable branding strategies. Institutional investors, who increasingly promoted such practices, could also play a crucial role in supporting and rewarding sustainable brands through their investment decisions.

By implementing sustainable branding strategies, organizations could enhance their reputation, build customer loyalty, increase employee satisfaction, and improve financial performance in the long run. Therefore, stakeholder theory provided a valuable framework for understanding the interrelationships between sustainable branding and the diverse groups of stakeholders impacted by an organization's actions.

2.7. Key Performance Indicators (KPIs) in the Market Research Industry

Aligning key performance indicator (KPI) dimensions according to research questions in the business environment was a complex task in this research study. However, using a priori theory and considering competency categories in the literature review provided a structured approach to this process (Margherita et al., 2021). Competency categories were a useful framework for organizing KPIs since they represented the essential skills, knowledge, and abilities that an organization required to achieve its goals, such as financial, operational, customer, and employee competencies.

To align KPI dimensions with the research questions, it was essential to start by identifying the research questions' objectives and the desired outcomes (Cruz Villazón et al., 2020). Once the relevant competency categories had been identified, a comprehensive review of the literature was conducted to identify potential KPIs within each category, using a priori theory to guide the selection process. The selected KPIs were assessed for relevance, feasibility, and reliability (Patole, 2018).

To effectively identify the right performance dimensions, it was important to relate the literature concepts with the organizational resources in the business environment, which helped in selecting the right actors for analysing the business environment (Cruz Villazón et al., 2020). In addition, it was crucial to align the research objectives for effective data collection from the business environment and measure them through UN SDG's goal indicators for selecting the appropriate performance indicators (Patole, 2018).

Table 2.7: Industry Analysis for Key Performance Indicators (KPIs)

Author	Context	Findings
Margherita et al., 2021	Competency categories are a useful framework for organizing KPIs.	Competency categories can be used to organize KPIs effectively.
Margherita et al., 2021	It is necessary to monitor the need for linking big data with the supply chain through the resource-based model for building competitive advantage for businesses and society.	big data and business analytics data for better utilization in business strategies.
Cruz Villazón et al., 2020	To align KPI dimensions with research questions, it is important to relate the literature concepts with the organizational resources in the business environment.	Relating literature concepts to organizational resources can help identify the right actors for analysing the business environment.
Cruz Villazón et al., 2020	It is essential to align the research objectives for effective data collection from the business environment and measure them through UN SDG's goal indicators for selecting the appropriate performance indicators.	Aligning research objectives with UN SDG's goal indicators can help select appropriate performance indicators.

Patole, 2018	The selected KPIs must be assessed for relevance, feasibility, and reliability.	Assessing KPIs for relevance, feasibility, and reliability is important.
Patole, 2018	It is crucial to align the research objectives for effective data collection from the business environment and measure them through UN SDG's goal indicators for selecting the appropriate performance indicators.	Aligning research objectives with UN SDG's goal indicators can help select appropriate performance indicators.
Patole, 2018	This approach has the potential to work in any industry that deals with sustainable development and can benefit both academics and practitioners in developing sustainable development strategies.	This approach can work in any industry dealing with sustainable development.
Margherita et al., 2021	Competency categories are a useful framework for organizing KPIs.	Competency categories can be used to organize KPIs effectively.
Margherita et al., 2021	It is necessary to monitor the need for linking big data with the supply chain through the resource-based model for building competitive advantage for businesses and society.	A sustainable branding strategy can connect big data and business analytics data for better utilization in business strategies.

This approach has the potential to work in any industry that deals with sustainable development and can benefit both academics and practitioners in developing sustainable development strategies. Similarly, it is necessary to monitor the need for linking big data with the supply chain through the resource-based model for building competitive advantage for businesses and society (Margherita et al., 2021).

In conclusion, aligning KPI dimensions according to research questions in the business environment requires a structured approach that considers competency categories in the literature review and uses a priori theory to guide the selection of appropriate KPIs (Margherita et al., 2021). By following this approach, organizations could ensure that their KPIs were relevant, feasible, and reliable, leading to better decision-making and improved performance. It was essential to validate the selected performance factors through piloting from the users in the industry to track success and guide research strategy towards the research objectives (Patole, 2018). This study realized the need for an effective sustainable branding strategy for connecting big data and business analytics data for effective utilization in business strategies (Cruz Villazón et al., 2020). Table 13 presents the results of the findings from the Key Performance Indicators obtained from the industry analysis.

2.8. Gaps in the Literature

Sustainable branding emerged as a crucial aspect of organizational success, particularly within the context of the global drive for sustainability. The integration of sustainability and branding factors into an organization's operations and marketing strategies helped create a competitive edge and achieve sustainable development goals (Hambali et al., 2020). Despite its growing importance, there was limited literature on how sustainable development goals related to information technology, branding strategies, and market research industry performance impact.

Market research is an essential component of an organization's success, providing valuable insights into customer needs and preferences, market trends, and competitive strategies. However, the market research industry had yet to fully embrace sustainability in its platforms, as only 2.5% of key players in the industry integrated sustainability into their operations, despite generating more than half of the total industry revenue (Diaz Ruiz, 2021). This presented an opportunity for practitioners and researchers to incorporate sustainability with technology to significantly impact the industry's performance through sustainability factors.

To integrate sustainability with technology, a comprehensive framework connecting various dimensions such as performance indicators, sustainability studies, marketing, and technological studies was needed (Sanchez-Planelles et al., 2021). However, there was a gap in the literature as consultant agencies focusing on specific client environments typically undertook the process. Addressing this gap in the literature presented an opportunity for practitioners and researchers to develop a sustainable branding strategy that integrated the United Nations SDGs into the market research industry to promote the industry based on sustainability factors.

The resource-based view framework was useful for analysing resource dimensions from the internal and external environment and integrating them into a pilot study to test practitioners in the industry (Sony, 2019). The pilot study could identify the potential of existing technology and operationalize it to integrate a sustainable branding strategy alongside the existing environment. While managers might doubt the use of KPIs due to their conflicting nature, this professional research aimed to identify the potential of KPIs and assist consultant practitioners in the industry in using existing technology effectively (Cruz Villazón et al., 2020).

This study was relevant for doctoral practitioners in the market research discipline to align sustainability as the key factor for branding. The Covid-19 pandemic had raised sustainability awareness across all sectors of society, highlighting the need for updated literature for the market research industry, especially during this changing period. Figures from the UK National Statistics Office and the Market Research Industry Report 2021 provided positive signs that it was the right time to invest in the industry's knowledge and infrastructure. However, every investment required a rigorous decision-making process to integrate new developments into business strategy and customer needs (Tambe, 2014).

Moreover, the scarcity of resources in the literature on the market research industry was a reason for poor academic knowledge among new graduates. Academic researchers could bridge this gap in the literature, which proved valuable during the pandemic, to uncover the industry's potential. The importance of online qualitative research had significantly increased during the pandemic, emphasizing the need for original and effective decision-making according to the Market Research Society Report 2021. Therefore, aligning sustainable branding with technology in the market research industry could help organizations achieve

their sustainable development goals, gain a competitive edge, and contribute to a sustainable future.

This study was relevant for doctoral practitioners in the market research discipline to align sustainability as the key factor for branding. The Covid-19 pandemic had raised sustainability awareness across all sectors of society, highlighting the need for updated literature for the market research industry, especially during that changing period. Figures from the UK National Statistics Office and the Market Research Industry Report 2021 provided positive signs that it was the right time to invest in the industry's knowledge and infrastructure. However, every investment required a rigorous decision-making process to integrate new developments into business strategy and customer needs (Tambe, 2014).

Moreover, the scarcity of resources in the literature on the market research industry was a reason for poor academic knowledge among new graduates. Academic researchers could bridge this gap in the literature, which proved valuable during the pandemic, to uncover the industry's potential. The importance of online qualitative research had significantly increased during the pandemic, emphasizing the need for original and effective decision-making according to the Market Research Society Report 2021. Therefore, aligning sustainable branding with technology in the market research industry could help organizations achieve their sustainable development goals, gain a competitive edge, and contribute to a sustainable future.

In conclusion, the integration of sustainable branding with technology could significantly impact the market research industry's performance by promoting sustainability factors. Despite the industry's importance in providing valuable insights, only a small percentage of key players integrated sustainability into their operations. Therefore, there was an opportunity for practitioners and researchers

to develop a sustainable branding strategy that incorporated the United Nations SDGs. A comprehensive framework connecting various dimensions such as performance indicators, sustainability studies, marketing, and technological studies was necessary to achieve this integration. Academic researchers could play a crucial role in bridging the gap in the literature and providing valuable insights for new graduates. The Covid-19 pandemic had highlighted the need for updated literature for the market research industry and aligning sustainable branding with technology could help organizations achieve their sustainable development goals and contribute to a sustainable future.

2.9. Section Summary

Chapter 2 of the thesis is the literature review section. The chapter began with an introduction, followed by a discussion of sustainable branding as a brand strategy. This section included a definition of sustainable branding, branding strategies in sustainability, branding attributes for sustainable competitive advantage, and the use of UN Sustainable Development Goals (SDGs) in sustainable branding. The next section focused on big data and business analytics in sustainable branding, including definitions and the role of these technologies in sustainable branding. The market research industry and its relationship to sustainable branding were then explored, covering the size of the industry, sustainability initiatives within the industry, and branding practices in the industry. Theoretical frameworks related to corporate sustainability, sustainable development, branding, human-to-human interaction, resource-based view, and stakeholder theory were discussed in detail. A conceptual framework was also presented, which outlined the objectives of the research, methodology, and expected findings. Additionally, key performance indicators (KPIs) in the market research industry were identified, and gaps in the literature were highlighted. Overall, this literature review provided a comprehensive overview of sustainable branding, big data and business analytics, the market research industry, and the theoretical frameworks that underpinned the study.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. Purpose of this section

This chapter outlines the methodologies used to inform this research. The research was conducted based on the reality and nature of knowledge, using a qualitative Inductive systematic review. The research followed a qualitative Inductive a priori methodology as it involved a higher-level interpretation of multi-disciplines which involved sustainability, branding, and business analytics attributes from the latest technologies used by practitioners in the market research industry. The methodological approach was contemporary and will be the new normal for researchers for using in multi-disciplinary researches (Pepple et al., 2022). It helped to understand consumer needs and perceptions on sustainability, which required continuous evaluation and refining of brand attributes associated with big data and business analytics (Erevelles et al., 2016). During the course of this research, which was not possible through time-bound constant quantitative data, the research went beyond the numbers and semi-structured data collected by following the research questions and theoretical framework, allowing for greater validity that aligned with the aims and objectives (Ramanathan et al., 2017).

Research design was not explicitly mentioned as a separate section in the provided methodology chapter. However, it was implicitly embedded within the research approach, strategy, and data collection sections. The research approach and strategy sections provided an overview of the overall plan for conducting the research, which included the research design. Meanwhile, the data collection

section described the specific methods that were used to collect the data, which were part of the research design. The methodology adopted using the A priori approach in the secondary data collection that helped to conduct the research to attain its validity through thorough justification for the conceptual framework with respect to the research questions and theoretical framework (Terry et al., 2017).

The primary data collection of the research was conducted using a semi-structured interview approach, engaging with professionals from various departments within technology companies that actively collaborate with the market research sector. This comprehensive dataset encompassed the insights and perspectives of 38 participants, representing a diverse array of 24 companies. These organizations were distributed across key global hubs for market research and data analytics, including the United Kingdom, the United States, Japan, China, Sweden, the Netherlands, the United Arab Emirates, and India. This international scope ensured a well-rounded and globally informed perspective on the subject matter.

The participants in this study held pivotal roles within the market research industry, primarily comprising senior-level managers, project managers, and directors. Their expertise spanned a wide spectrum of domains, including big data analysis, business analytics, supply chain analytics, design thinking, behavioural architecture, traceability solutions, sustainability reporting, and fintech. By engaging with these industry experts, the research was able to access a rich tapestry of insights directly linked to both the internal dynamics and external factors impacting the market research sector. This diverse and carefully selected group of participants was instrumental in providing a holistic and nuanced understanding of the subject matter under investigation.

The impact of COVID-19 changed the working pattern of most participants who shifted from office work to work-from-home patterns. This positively and negatively impacted the research in finding the availability of time from the right participant within the limited period of the data collection phase. This research will be one of the very few works in the literature that will prove that contemporary approaches to qualitative research have the potential to tie up challenging concepts of sustainability and branding with the latest technologies of big data and business analytics to bring about a change in the market research industry, thereby being a change for all users of the data, including governments and top companies around the world.



Figure 3.1: Structure of the Methodology Chapter

Source: Created by Author (2023)

Chapter 3 provided an overview of the research methodology employed in this study. It outlined the purpose of the section, the research philosophy, approach, and strategy used to carry out the research. The chapter also described the methods for data collection, including secondary and primary data sources, and explained how the validity and reliability of the data were ensured. In addition, it detailed the fieldwork conducted through semi-structured interviews, followed by the data analysis process using thematic analysis. Finally, ethical considerations were addressed, and a summary of the section was provided. This chapter aimed to provide a comprehensive understanding of the research methodology, ensuring the credibility and rigor of the study's findings.

3.2 Research Philosophy

The research world underpinned all research based on fundamental philosophical assumptions of ontology, epistemology, axiology, and the methods used to provide meaning for the research. Sometimes it was necessary to use certain tools to understand where the research philosophy was pinned for business research. This could be understood by increasing awareness about research philosophies used in the research world (Creswell & Poth, 2016).

Identifying the right research philosophy was very important for conducting research based on the reality and nature of knowledge. The research was led purely by assumptions of progress from scientific practices through technology that had evolved in the last decade, comprising people's philosophies and assumptions about the world and the nature of knowledge (Al-Ababneh, 2020).

As part of this plan, this research underpinned a few research philosophies in this chapter to understand the rationale for the adopted research. To underpin this

action, the HARP tool was used to identify the right research philosophy as part of choosing the right reflexive tool. This helped identify using the right questions refined to attain the best results from the research. It helped find the research philosophy from different aspects of philosophical beliefs. From the HARP tool (Saunders et al., 2007), the following were interpreted from different sections before finalizing the actual research philosophy:

Ontology: The researcher's beliefs about the nature of reality and what could be known in this approach may include a constructivist perspective, recognizing that reality was socially constructed and shaped by individual experiences and perspectives (Al-Ababneh, 2020). The research went through multiple disciplines connected to society with a lot of meaning that could help the society with the right interpretations of the research through practitioners and academics in the modern world. This clearly connected the ontological factors connected with the research that clearly explained the nature of reality.

Epistemology: The researcher adopted an interpretivist perspective, acknowledging the subjective nature of knowledge and valuing the experiential knowledge of the participants. They believed in the importance of context and sought to understand the meaning behind the data (Al-Ababneh, 2020). The researchers' view of knowledge should connect with acceptable knowledge of theories used. It was clearly seen that the theories were too simplistic for understanding and had high validity in the present and future world to capture its complete richness by society.

To conduct research on the use of sustainable branding, big data, and business analytics in the market research industry for positioning the brand, a research philosophy that aligned well with a data-driven infrastructure of the business was necessary. The Interpretivism philosophy was used to explore the complexities

of social phenomena associated with market research companies as consumers, and the generated data was shaped by the researcher's perceptions in the business. The paradigm of Human2Human marketing was also used (Kotler, Pfoertsch, & Sponholz, 2021b).

This philosophy aligned well with the process used by researchers in the industry to obtain results based on assessing the behaviour and culture of stakeholders associated with the business. The result of such analysis facilitated theory formulation (Saunders, Lewis, & Thornhill, 2009), which could contribute to the literature on future businesses and scholars in the market research industry. Exploring brand attributes in the context of sustainability through big data and artificial intelligence could help promote companies in the market research industry, especially after the COVID-19 pandemic.

The advantage of using qualitative methodology in the context of big data analytics and sustainable branding was that it allowed for a flexible data collection process, which was crucial due to the uncertainties and fluctuations caused by the Covid-19 pandemic on the social and economic aspects of the business during the research period. The psychological aspects of the participants needed to be considered, which necessitated Interpretivism as the primary philosophy in this industry research that demanded social construction shaped by human experiences and social contexts (Creswell & Creswell, 2018).

Semi-structured interviews were the most appropriate research method for this situation, as it was essential to understand whether there was a disparity between the analytical data and the new knowledge perceived from participants (Denscombe, 2014). The thematic analysis approach was used to capture the complexities of meaning within a dataset (Guest, MacQueen, & Namey, 2011).

This helped analyse the research and interpret data to ensure that the research objectives aligned well with the research questions.

Axiology: The values held by the researcher were of prime importance, especially while working on a sustainability project. This led to identifying the right aspect of axiology through the values and beliefs of the researcher that were the key interpretations for the betterment of society as a whole. The United Nations Agenda 2030 totally connected the values and beliefs that every individual should have in their life for the betterment of society (Long et al., 2019).

Methodology: The purpose of this research was to explore the intersection of branding, big data, and business analytics with sustainability in order to develop a multidisciplinary approach to sustainability projects. The research methodology involved a qualitative inductive approach, which included a literature review and semi-structured interviews with industry professionals. By using this approach, the researcher aimed to gain a deeper understanding of how stakeholders could promote sustainability through marketing and technology in modern business practices. The research also aimed to identify ways in which sustainability practices could be transformed from mere regulations to mandatory laws that promoted societal well-being in the present and future (Assembly, 2015). Ultimately, the goal was to create new insights that could help stakeholders recognize the importance of building a sustainable society and taking action to achieve this goal.

Methods: Specific techniques or tools used to gather data may have included conducting a systematic literature review to identify key themes related to sustainability, branding, business analytics, UN SDG goals, and big data. Semi-structured interviews were used to explore these topics more deeply with industry practitioners. This helped stakeholders of the business or academicians

understand that there was meaningful data that could lead to practice or practice-led research (Savin-Baden & Howell-Major, 2013). This was made possible by embarking on in-depth interviews into the research for interpreting the best experiences into the research.

According to Archer, M. S. (1995) the nature of structure and agency was often challenging as it was determined by various forces of nature. In this sustainability research, it was essential to find the best participants from the industry who held practice-led positions in which the emphasis was on practical application and creative output rather than just theory or analysis (Savin-Baden & Howell-Major, 2013). It involved using the participants' expertise and experience to develop new approaches, techniques, or solutions in this research by actively engaging in their practical work and creative exploration through semi-structured interviews (Kvale & Brinkmann, 2009).

3.3 Research Approach

The need for a high level of understanding in time-consuming research required critical reflection to achieve the best results, especially when using interpretivism philosophy to uncover the underlying meanings in contemporary technology and branding research within data-driven industries (Pulla & Carter, 2018). Our research demanded multi-disciplinary expertise connected with the market research industry, posing restrictive constraints from senior management participants for meaningful data that could have a high impact in both the practitioner and academic world. During the COVID and post-COVID period, finding the right approach for theory development was critical due to the volatility in the availability of suitable senior-level participants within the time horizon. Therefore, identifying the optimal approach to achieve the perfect data saturation point using the correct methods was necessary. The saturation point could not be

predetermined as it may overlook concepts or themes generated during piloting and in-depth interviews.

This research adopted a qualitative study methodology focusing on gaining insights from real-life experiences and opinions of domain experts. The possibility of obtaining insights from qualitative data in a multi-disciplinary project handling big data and sustainable branding was explored through qualitative inductive reasoning using a priori coding, which is rarely done in inductive research. This approach was justified by its connection to the research questions and objectives, which addressed multi-disciplinary fields (Nunes & Al-Mamari, 2008).

This research was focused on the information technology industry, specifically on the market research sector. The researcher identified an increase in the use of qualitative inductive approaches in the information systems (IS) field (Nunes & Al-Mamari, 2008). Although the literature on inductive approach demands the reduction and clarification of data developed from complex data to help identify themes or categories from the literature (Thomas, 2006), it is important to understand that research using inductive approaches with A Priori coding has been challenged due to pitfalls arising from challenges in reflexivity, especially when including multidisciplinary fields of technology and management (Nunes & Al-Mamari, 2008).

Inductive approaches are best suited for exploring complex processes that require detailed explanation and input directly from stakeholders involved in the environment (Kitchin, 2014). When conducting research across multiple disciplines, adopting an inductive approach is necessary to understand what is relevant during the data saturation process (Langley, 1999). In sustainable development, other research approaches are often not feasible due to the need for

continuous improvement and the evolving nature of the field. The literature review helped in creating themes and categories that aided in conceptualization, which was then validated and improved through stakeholder experiences from both internal and external business environments. This approach enabled the research to validate findings directly from users, address new experiences, and establish logical underpinnings for data saturation."

Critical reflection and critical thinking were necessary for sustainable development, making inductive research approach ideal. It facilitated implementing research findings while motivating future researchers to work on the learning process of sustainable development using multidisciplinary fields (Susilawati et al., 2019). This research was game-changing for those who used deductive approaches with a priori coding as the traditional method in research. This research is one of many attempts in the modern world that potentially used technologies like big data and business analytics to take advantage of using inductive approaches to get the best possible data by using a priori theory.

With technology advancing faster than the academic field, it was essential to familiarize oneself with inductive approaches' culture and understanding of how they benefit organizations in research and practice. This aided in developing their workforce, key performance, organizational dynamics, and social networks, which are of high importance in the practitioner and academic world of sustainability. Inductive approaches' scope for better data visualization helped real-time analysis, aiding in exploring and interpreting data (McAbee et al., 2017). The potential for continuous evolution focused this research on an inductive approach to get the best results as the research evolved through the time horizon.

The research approach used was the qualitative inductive approach with A Priori coding. Many researchers dealing with big data are shifting towards an inductive approach as big data provides a detailed resolution of the whole business domain. By reducing the use of theories and models in analytics, meaningful and truthful data analysis can be achieved through finding patterns and relationships, leading to original knowledge creation and validation through participants with domain-specific knowledge (Kitchin, 2014). The inductive approach identified emerging attributes related to a topic area requiring attention to detail, such as multi-disciplinary fields. Comparisons from emerging dimensions from literature and data aided in identifying the right attributes (De Moura Jr & Bellini, 2016). One of the primary objectives of this research was to identify attributes related to branding that connect sustainability and big data.

Sustainable business development using branding and big data required reasoning beyond the existing schemas of literature, which was possible through data collected from practitioners in the industry. The conceptual framework derived from literature feasibility using a priori coding and piloting helped identify prior knowledge that could increase innovation and creativity when presented to participants with domain-specific knowledge (Hassad, 2020). This aided in continuous improvement and progression of theory development as part of sustainable development using branding attributes and big data. Identifying universally accepted attributes while approaching multidisciplinary fields was usually challenging. The inductive approach aided in managing complex situations, comparing and identifying attributes to supplement a specific context for measuring employer branding through expert opinions (Pike & Kerr, 2012).

As the study used the qualitative inductive approach with A Priori coding, it was crucial to carefully collect data when integrating more than one concept into the research idea as a multidisciplinary research. Collecting data from real-world

practitioners was challenging during difficult times of the pandemic, especially when transitioning from working in a cubicle to working from home. The inductive approach used generated ground-breaking change in the market research industry by adapting United Nations' sustainability development goals as part of sustainability in data-driven industries. The research used in-depth semi-structured interviews, documents and reports from the industry, along with secondary data from the literature world.

3.4 Research Strategy

There is a generalization that a priori and posteriori are deductive and inductive, respectively. In this research, the principle of induction was considered a priori (Nunes & Al-Mamari, 2008), and the objective of the study was valid for any time in terms of sustainable development of society. A priori knowledge was often tied to the function or reason without connecting it to any sense experience. Here, a priori knowledge is considered certain knowledge that could be proved through logic and had the potential for continuous improvement (Müller-Merbach, 2007).

The need for sustainable development remained true, and the awareness of it was already there; no experience was needed to understand that a sustainable society was necessary. Therefore, in this research, the principle of induction, which was true regardless of experience or awareness, was used as an a priori principle in terms of sustainability for multidisciplinary research. This meant that inductively coding the a priori codes produced meaningful data through domain experts using data collection tools and techniques that helped in continuous improvement. Many studies conducted purely on a priori theory had called for an inductive approach as it opened paths for defining the subject area from a broader perspective of the research objectives (Yildirim, 2022). Therefore, using a

qualitative inductive approach with a priori coding was the best way to address the research questions and objectives with multidisciplinary fields to connect the value and connection between the emerging themes (Lemon & Hayes, 2020) from big data, branding, and sustainability.

This research focused on using the a priori theory to justify the objectives and provide meaningful answers to the research questions. This strategy helped the research to identify the complexity of multidisciplinary fields, especially when technologies like big data, business analytics, and branding strategies were used for sustainable development (Pepple, 2022). The research flowed through reviewing the literature to discover a priori theory for contextualizing and developing frameworks. The main advantages of using this theory were that it helped in entering complex disciplines like big data from the view of branding and sustainable development. It helped to develop and formulate valuable insights from the research questions and objectives.

The data collection tools were designed well for validation or justification. It helped to identify the right codes and categories relevant to the research. This helped the research to attain saturation without losing much time on omitting and analysing data that was not needed considering the objective of the study. It also provided clear direction for future recommendations where the study could be routed. These actions helped researchers to have high reflexivity on the topic for creativity and innovation, thereby getting the best results from the beginning of the project (Nunes & Al-Mamari, 2008).

This research included the sustainable development goals through multidisciplinary fields, including the 17 UN SDG goals that were themselves strong a priori knowledge that needed to be considered with different types of capital, which could be natural, social, or artificial. Therefore, choosing the right

method of an inductive a priori coding with multidisciplinary fields acted as a strong base for qualitative analysis to identify meaningful data (Pepple, Dennis, Makama, & Okeke, 2022).

In conclusion, the research strategy of this thesis involved using a qualitative inductive approach, which meant that the research was exploratory, and data driven. Semi-structured interviews were conducted with participants to gather information and insights about the research topic. The initial codes were created using a priori coding approach from literature, which involved using existing theories and concepts as a basis for analysis. The researcher then used these codes as a starting point to develop new themes and patterns.

3.5 Data collection

The data collection for this research was carefully organized using a qualitative inductive approach and a priori coding techniques. The inductive approach alone would not have been able to answer the research questions on a broader perspective to determine the key performance indicators for multidisciplinary research. The research objectives determined that an interpretivist approach could help give the best results from in-depth interviews due to the researcher's accessibility to industry participants. This approach helped identify the intensity of social relationships and behavioural phenomena from a broader perspective (Pulla & Carter, 2018).

Qualitative data collection was mainly associated with tools such as semi-structured interviews and interview guides (Elliott, 2018). The semi-structured interviews for this research were conducted with domain experts from different countries who provided meaningful and logical data directly from senior levels of the technology industry associated with market research. The main objective

was to gain insights that qualified participants' perspectives on the subject, which were then validated and justified through rigorous analysis with a priori inferences.

3.5.1 Secondary Data Collection

The secondary data collection process encompassed a diverse array of sources, encompassing both published and unpublished materials. This extensive collection method was particularly critical in light of the stringent COVID-19 protocols enforced during the initial stages of the research, which made in-person data gathering challenging. The sources utilized in this process were categorized as desk research.

A wide range of databases were diligently explored to access valuable information. These included ProQuest, provided by the university, and EBSCO Host, accessed through the British Library. Additionally, resources such as Open Athens, JSTOR, UNDP reviews and reports, government publications, websites, and various journals and reports from esteemed organizations were scrutinized. To augment this exhaustive digital research, the researcher also availed access to the University of Wales Trinity Saint David, London Campus library, as well as other reputable institutions like the British Library, University of Westminster library, and the University of Greenwich Library through the SCONUL access program with participating British universities.

In order to gain further insights into the global landscape of technology services, the research incorporated industrial visits to India. These visits included interactions with industry leaders such as Infosys Limited and Tata Consultancy Services, providing valuable perspectives on the structure of technology services on a global scale. Complementing this, visits to smaller industrial settings affiliated with Mata Amritanandamayi Math, one of India's largest charitable organizations dedicated to sustainable development goals, were instrumental in gathering data from junior and mid-level employees. Extensive travels to major Indian technology techno parks in five cities enriched the dataset with diverse viewpoints and experiences.

Expanding the research scope, visits to technology companies in London and Manchester media city were conducted. This facilitated a deeper understanding of the subject matter, offering insights into the specific challenges and opportunities encountered in these geographical contexts.

The researcher's close engagement with various companies and participants, coupled with an extensive geographical reach, proved invaluable during the conceptualization phase. The secondary data collection process continuously unearthed new themes, refined existing ones, and elucidated patterns related to technology. These insights were instrumental in shaping the subsequent primary data collection efforts, ensuring the validity and reliability of the ensuing analysis and findings.

3.5.1.1 Conceptual Framework

A conceptual framework is a structure that outlined and organized the key concepts, variables, relationships, and assumptions underlying a research study or project (Wasicsko et al., 2004). It provided a theoretical foundation for understanding the research problem and guided the selection of research methods and data analysis techniques. We also highlighted the key theoretical perspectives and literature that underpinned our conceptual framework. In this section, we presented the conceptual framework that informed our study and explained how it related to the research questions and objectives using the a priori coding approach shown in Figure 3.2.

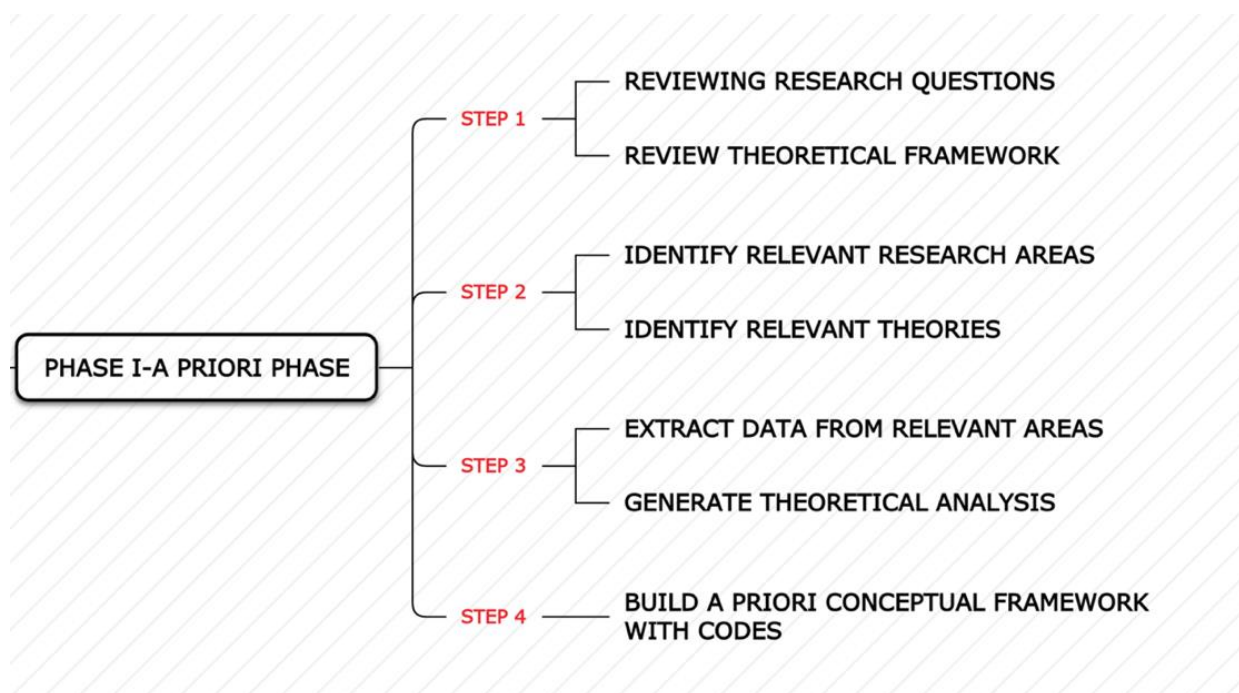


Figure 3.2: A priori coding approach used for formulating the Conceptual framework

3.5.1.2. Methodology

The methodology section of the conceptual framework referred to the systematic approach used to collect and analyse data for the study. The research methodology was appropriate to the research questions and objectives and aligned with the theoretical framework of the study (Creswell & Creswell, 2018).

The following sections described the research design, data collection methods, and data analysis techniques used to address the research questions posed in the conceptual framework:

1. **Research Design:** The research design was qualitative, with a focus on developing a conceptual framework using the a priori coding approach based on existing literature.
2. **Literature Review:** This literature review was structured into several sections. Section 2.2 discussed sustainable branding as a brand strategy and included subsections on the definition of sustainable branding, branding strategies in sustainability, branding attributes for sustainable competitive advantage, and the UN Agenda 2030 and Sustainable Development Goals in sustainable branding. Section 2.3 explored big data and business analytics in sustainable branding, covering their definitions and roles. Section 2.4 focused on the market research industry, with subsections on its size in the UK, sustainability in the industry, and branding in the industry. Finally, section 2.6 presented a theoretical framework for the study, including theories of corporate sustainability, sustainable development, branding, human-to-human aspect, resource-based view, and stakeholder theory.

3. *a priori* Coding Approach: A list of a priori codes was developed based on the key concepts and themes identified from the literature review. A priori coding was often used in multi-disciplinary research because it allowed researchers from different disciplines to use a common set of codes or categories to analyse data (Pepple et al., 2022). These codes were established in advance based on existing theory or previous research, which helped ensure that data analysis was consistent across different researchers and disciplines (Nunes & Al-Mamari, 2008a). This improved the reliability and validity of findings and facilitated interdisciplinary collaboration by providing a shared language for discussing and interpreting results.

4. Data Collection: Desk-based data collection was required as the study was based on the analysis of existing literature at this stage. However, data collection was conducted in later stages of the research process, such as when testing the conceptual framework through empirical research. This involved collecting data from participants using various methods, such as surveys, interviews and observations (Creswell & Creswell, 2018). The research methodology employed a multifaceted approach to develop a comprehensive understanding of sustainable branding within the market research industry. A pivotal element in this process was the utilization of semi-structured interviews conducted with 38 participants from leading technology companies across the globe. These interviews served as the cornerstone for data collection, allowing us to delve deep into the experiences, perceptions, and insights of senior-level managers, project managers, and directors closely involved in the market research industry. The semi-structured nature of these interviews facilitated in-depth discussions and offered participants the flexibility to provide nuanced responses. Moreover, surveys were initially used to pilot questions and formulate a robust set of a priori codes, which then guided the semi-structured interview questions. Additionally, on-site

observations during visits to market research companies in India provided valuable context and real-world observations that informed the development of these codes. Collectively, these research methods synergized to construct a robust foundation for our study, ensuring that the a priori coding system was grounded in both theory and practical industry insights.

5. **Data Analysis:** The literature was analysed, and instances that fit into the pre-determined codes were identified. Open coding was also used to identify additional themes that emerged from the literature.
6. **Development of the Framework:** Based on the identified codes and themes, a preliminary conceptual framework was developed to represent the relationships between different elements of the subject matter.
7. **Refinement of the Framework:** The identified codes, themes, and preliminary framework were refined and organized to develop a final framework that reflected the themes present in the literature.
8. **Validation:** To ensure the validity of the framework, it was reviewed by experts in the academic and practitioner fields for accuracy and comprehensiveness.
9. **Limitations:** Limitations of the methodology used, and the conceptual framework developed were discussed, including potential biases and limitations of the literature review in detail after empirical considerations in the later stages.
10. **Ethical Considerations:** Ethical considerations included proper citation and acknowledgement of sources used in the literature review.

3.5.1.3. Findings

The conceptual framework was a critical element as it provided a theoretical foundation and structure for organizing ideas and concepts. In the literature review study conducted by Llewellyn-Beardsley et al. (2020), several key themes emerged related to the development and application of conceptual frameworks in various fields. The authors identified the importance of considering the context in which a conceptual framework was developed, the need for clarity in defining concepts and relationships, and the iterative nature of framework refinement. Additionally, Jones and Brown (2019) highlighted the value of incorporating diverse perspectives and stakeholders when constructing a conceptual framework to ensure its relevance and applicability. These findings provided valuable insights into best practices for conceptual framework development and could inform future research endeavours.

The importance of branding has been widely recognized in the business world as it plays a crucial role in creating differentiation and establishing a strong connection with consumers. With the advancement of technology, data-driven companies have been able to leverage big data to inform their branding strategies and create a more personalized and engaging experience for customers (Gupta & Mishra, 2021). In this literature review, we analysed the branding strategies of data-driven companies and identified key brand attributes for sustainable positioning.

Firstly, we examined the branding strategies employed by data-driven companies to gain a competitive advantage in the market (Carah, 2017). This involved an analysis of research articles that detailed the various approaches taken by these companies to leverage their data insights for effective branding. Next, we identified key brand attributes that were essential for sustainable positioning in

the market (Koo & Loken, 2022). This involved a critical evaluation of existing literature on the subject, with a focus on empirical studies that identified the most important attributes for successful branding.

Furthermore, we explored qualitative research methods that could be utilized by companies to gain a competitive advantage in their branding efforts (Abimbola, 2001). This involved an examination of various qualitative research techniques such as focus groups, in-depth interviews, and ethnography, and how they could be applied in the context of branding. Finally, based on our analysis of the literature, we formulated a conceptual framework that provided a comprehensive understanding of the key factors that influenced sustainable branding for data-driven companies. This framework served as a useful guide for companies looking to establish a strong and sustainable brand in today's competitive marketplace (Gulisova et al., 2021).

3.5.1.4 Relationship of A priori codes vs Research questions

Research Question 1: How do big data and business analytics help to build sustainability through sustainable branding?

Table 3.1: Review of literature for A priori Codes vs Research Question 1

Author	A Priori codes	Findings
Carah (2017)	<i>Data-driven Technologies</i>	Emphasizes the importance of using the right branding attributes to deliver data-driven results that mediate action from clients or consumers, which can benefit society as a whole.
Cetindamar et al. (2022)	<i>Reduce Costs</i>	Strategies and tactics aimed at minimizing expenses in business operations.
Cetindamar et al. (2022)	<i>Increase Profitability</i>	Actions taken to optimize revenue generation and boost profitability.
(Raut et al., 2019)	<i>Sustainable business</i>	Theoretical and practical insights into big data implementation issues to improve sustainable business performance in developing countries.
Ibrahim et al. (2021)	<i>Performance Evaluation</i>	Performance evaluation and the utilization of big data allows for more accurate and timely measurement of key performance indicators, which can lead to better decision-making and improved business outcomes.
(El Hilali et al., 2021)	<i>Commitment to Sustainability</i>	Demonstrating a genuine commitment to promoting environmental and social sustainability in business operations.
(Tambe, 2014)	<i>Return on Investment</i>	Investing in big data help to increase productivity by choosing specific labour markets and attain faster return on investments.

Research Question 2: What are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?

Table 3.2: Review of literature for A priori Codes vs Research Question 2

Author	<i>A Priori codes</i>	Findings
(Alvarado-Karste & Guzmán, 2020)	<i>Brand Equity</i>	The conveyed values and beliefs of the brand carry greater significance than whether the brand identity is based on emotions or rationality, given that distinct consumer segments respond differently to emotional and rational brand identities.
(Koo & Loken, 2022)	<i>Brand Positioning</i>	Sub-branding strategies can influence brand positioning in the context of green branding.
(Pasquinelli et al., 2021)	<i>Brand Values</i>	Ensuring that a company's core values and principles align with its branding strategy and messaging.
(Hsiung et al., 2021)	<i>Identifying Sustainability Partnerships</i>	Sustainable partnerships through brand value co-creation and dynamic brand value chain, also including the importance of shared experience perception configuration and resource sharing, as well as the role of co-production platforms in facilitating brand engagement.

(Kunz et al., 2017)	<i>Engagement Strategies</i>	By focusing on shared experience perception and collaboration, brands can create more value for their customers and strengthen their engagement strategies over time.
(Nyagadza et al., 2020)	<i>Personalized Communication</i>	Tailoring marketing messages and communication channels to individual consumers' preferences and behaviours.
(Alvarado-Karste & Guzmán, 2020)	<i>Emotional Connections</i>	Establishing an emotional connection with customers by appealing to their values, beliefs, and emotions.
Grubor & Milovanov, 2017a	Branding efforts	Market research firms are providing valuable insights into how the pandemic is affecting various industries and regions, as well as identifying emerging opportunities for growth.
(Baldauf et al., 2003)	<i>Measure Brand Performance</i>	Measuring perceived quality, brand loyalty, and brand awareness significantly contribute to brand performance, customer value, and willingness to purchase.

SOURCE: Created by Author (2023)

Research Question 3: How can qualitative study in sustainable branding provide insights for gaining a competitive edge through big data and analytics?

Table 3.3: Review of literature for A priori Codes vs Research Question 3

Author	<i>A Priori codes</i>	Findings
(Gulisova et al., 2021)	<i>Qualitative Study</i>	Qualitative research is valuable in gaining deeper insights into stakeholder experiences and perspectives. This can inform future strategies and decision-making processes towards promoting sustainability in rural communities.
(Abimbola, 2001)	<i>Competitive Edge</i>	Qualitative research can be used to investigate issues such as idea generation, building brand trust, opportunities orientation, and enhancing entrepreneurial gain through exit strategy.
(Ramanathan et al., 2017)	<i>Big Data Analytics</i>	Qualitative research can capture the subjective experiences and perceptions of individuals and provide rich descriptions of their behaviours, attitudes, and motivations.
(Kim & Ko, 2012)	<i>Engagement Strategies</i>	Qualitative research helped to identify key factors influencing consumer engagement with social media marketing campaigns that were not captured by traditional quantitative methods.
(Burrell & Fourcade, 2021)	<i>Process Optimization</i>	Qualitative research could be used to understand how people are responding to algorithmic intermediation in digital communication, which could inform social media or advertising strategies.

Research Question 4: How is a theoretical framework formulated using sustainable branding strategy in data-driven companies that use big data and analytics?

Table 3.4: Review of literature for A priori Codes vs Research Question 4

Author	<i>A Priori codes</i>	Findings
(Sanchez-Planelles et al., 2021)	<i>Theoretical Framework</i>	Causal mechanisms that lead companies to embrace sustainability in a successful way and figure out the causality relationships between sustainable variables that will lead to expected outcomes.
(Saviolo & Borney, 2021)	<i>Sustainable Branding</i>	Proposes the need for framework for achieving sustainable branding that integrates brand and supply chain perspectives
(Yu et al., 2021)	<i>Data-Driven Companies:</i>	Emphasises the need for a theoretical framework that integrates organizational culture and information processing theory for improving a firm's capacity to analyse information and make effective decisions regarding financial problems in a supply chain.

(Lichtenthaler, 2021)	<i>Big Data Analytics</i>	Relevance of framework focusing on the innovation-based view and sustainable design concepts in linking sustainability initiatives to core business activities using big data.
(Jraisat et al., 2022)	<i>Strategic Partnership</i>	Proposes a framework that Collaborates with other organizations to achieve long-term strategic objectives through cooperation, coordination, and collaboration; management of information flow between partners; and product flow management with demand-supply coordination between partners.
(Kunz et al., 2017)	<i>Engagement Strategies</i>	Proposes that Sustainability frameworks using engagement strategies requires a dynamic and iterative value generation process that involves both the customers and the firm in recognizing shared values.
(Currie et al., 2020)	<i>Brand Performance</i>	The finding suggests that in order to understand consumer preferences for sustainable products throughout the product life cycle, it is important to identify key factors that influence those choices. Furthermore, utilizing big data analytics to capture and analyse consumer data can provide valuable insights into sustainable consumption patterns.

Briefing A priori Codes connected with the Key concepts in Figure 3.2:

The figure highlights four key concepts in the data analysis section: sustainable branding, the market research industry, big data and business analytics, and KPIs of the business environment.

1. Sustainable branding involves a commitment to sustainability, identifying sustainability partnerships, aligning brand values with sustainable practices, and measuring brand efforts and performance.
2. Big data and business analytics employ data-driven technologies to optimize processes and measure brand efforts and performance.
3. The market research industry focuses on qualitative studies, engagement strategies, personalized communication, and emotional connections to understand consumer behaviour and preferences.
4. KPIs of the business environment include reducing costs, increasing profitability, gaining a competitive edge, and implementing successful strategies.

By comprehending these fundamental concepts, organizations can devise successful approaches for sustainable branding, conduct comprehensive market research to gain a deeper understanding of their customers, leverage big data to optimize processes and evaluate progress, and strive to attain KPIs that will drive long-term success. However, it should be emphasized that assessing KPIs for relevance, feasibility, and reliability is crucial in ensuring their effectiveness (Patole, 2018)

3.5.1.5. Formulating the conceptual framework

The conceptual framework served as the backbone of our research study, providing a clear and organized structure for understanding the research problem, guiding the selection of research methods, and analysing the data (Dimitropoulos, 2022). In this section, we elaborated on the conceptual framework that informed our study, which was formulated from a review of the relevant literature, with a focus on the market research industry. Figure 3.3 shows how the key concepts and their relationships were outlined to provide meaning to the research problem.

The key concept of sustainable branding was formulated using sustainability and branding strategies and their attributes. The sustainability aspect was represented through the Sustainable Development Goals (SDGs) of the United Nations (UN), which provided a comprehensive framework for understanding sustainable development (Sachs et al., 2019). After analysing the SDGs, we found that Goal 17 had a connection with all the other 16 goals, and it served as the right goal that could connect all other key concepts of branding strategies and attributes to the technology of big data and business analytics (Franco & Abe, 2020).

To ensure that all stakeholder involvement was considered, we conducted an analysis of the business environment. This helped to identify the key performance indicator (KPI) dimensions that helped in creating a sustainable competitive edge (Margherita et al., 2021). The KPIs were assessed for relevance, feasibility, and reliability to ensure that they were suitable for our study (Patole, 2018).

Using the a priori coding approach, we formulated the conceptual framework with the right theoretical constructs and through the resource-based view. This allowed us to identify the initial themes and codes before the inductive phase of

justifying the findings through the semi-structured interviews (Nunes & Al-Mamari, 2008b). An a priori coding approach was necessary for this study, given that it entailed linking fundamental ideas to form a multidisciplinary research (Pepple et al., 2022).

The conceptual framework served as a valuable guide to understanding the relationships between the key concepts, variables, assumptions, and relationships underlying our research study (Wasicsko et al., 2004). It provided a theoretical foundation for our research and helped us to understand the research problem in a comprehensive way. Through the use of the conceptual framework, we were able to develop effective strategies for sustainable branding, conduct market research to better understand our customers, use big data to optimize processes and measure success, and aim to achieve KPIs that will contribute to long-term success (Kunz et al., 2021; Sanchez-Planelles et al., 2021).

In summary, our conceptual framework is a structured and organized approach to understanding the key concepts of sustainable branding, the relationship between the SDGs and branding strategies, the importance of KPIs, and the role of big data and business analytics in achieving sustainable competitive advantages. This framework provided a strong foundation for our research and helped us to understand the complexities of the research problem in a meaningful way.

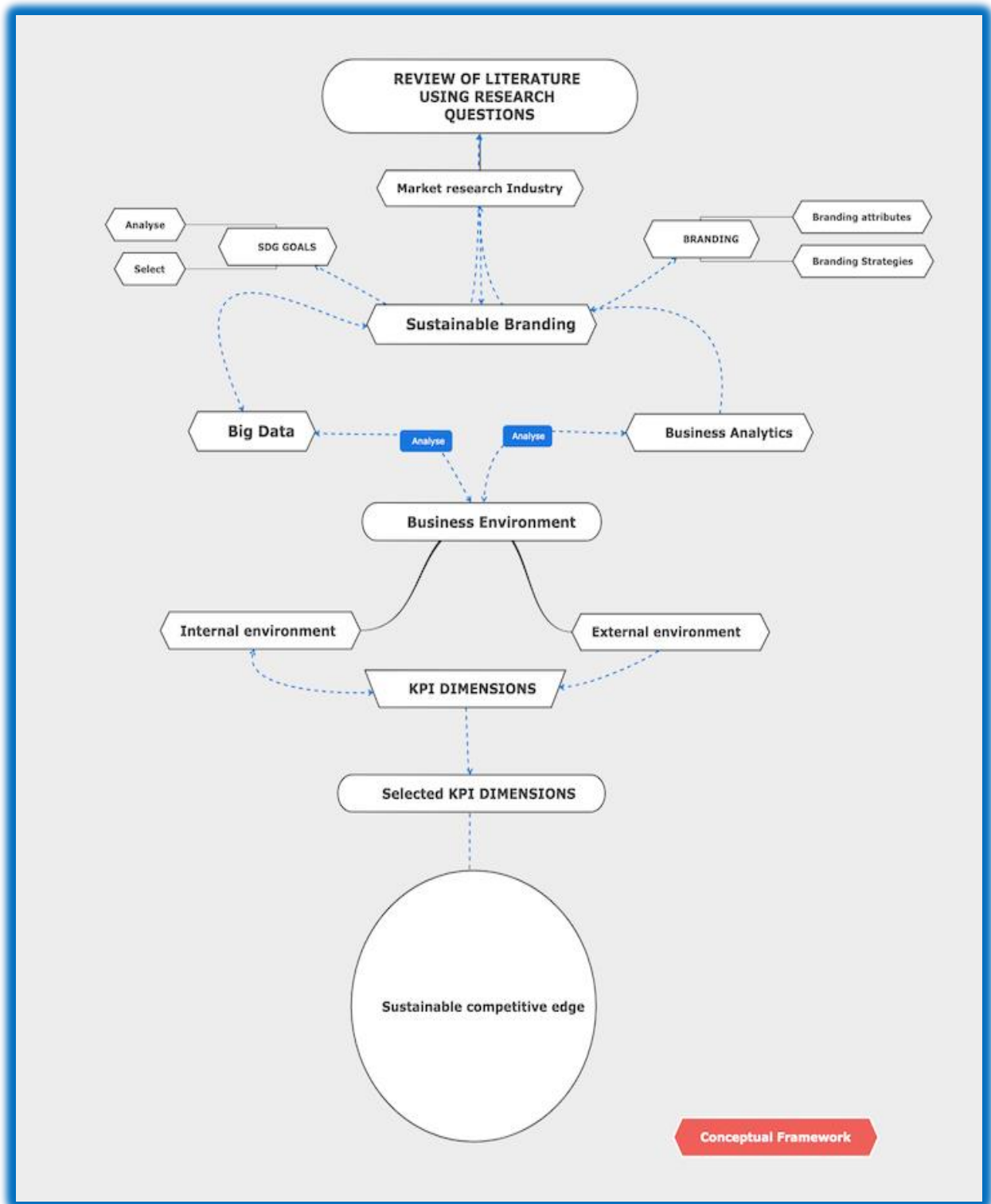


Figure 3.3: Framework -Key concepts and relationships from a priori coding approach

Source: Created by Author (2023)

3.5.2 Primary Data Collection

This study employed a rigorous qualitative inductive approach infused with a sustainability lens to meticulously explore the profound implications of various technology industry practices on organizational performance and continuous improvement. The primary data collection process revolved around semi-structured interviews, which were thoughtfully conducted, either in-person or through remote channels, including video and phone calls, ensuring accessibility and flexibility for participants across the globe.

Our participant selection was a meticulous process, guided by the aim of capturing diverse voices and perspectives within the technology industry. The chosen participants represented a kaleidoscope of domains, including business analytics, design thinking, sustainability research, UN SDG advocates, behavioural architects, lean-thinking managers, product managers, branding experts, architects, project consultants, legal tech consultants, and fintech architects. This comprehensive range ensured that we gained insights from various facets of the industry, enriching the depth and breadth of our study.

The recruitment strategy was underpinned by purposive sampling, a deliberate and strategic approach that allowed us to select participants with the most relevant expertise and experiences. It was essential to ensure that our participants possessed direct associations with organizational performance and continuous improvement, aligning with the core focus of our research. Ethical considerations were paramount throughout the recruitment process, and incentives such as handmade sustainable gift cards were thoughtfully offered to encourage participation, thereby upholding ethical standards and compliance with relevant regulations and University guidelines.

To maximize the richness of our data, interviews were meticulously recorded and subsequently transcribed verbatim. The interview questions themselves were a product of a rigorous literature review, which not only informed our understanding but also contributed to the development of a priori codes derived from existing scholarly works. These questions were strategically crafted to delve into participants' profound perspectives, allowing us to navigate the intricate landscape of technology practices and their impact on organizational performance and continuous improvement.

The data analysis process was a judicious blend of a priori coding and an inductive approach. A priori codes derived from the literature served as a robust foundation, ensuring that we addressed key dimensions within our research scope. Simultaneously, our analysis embraced the flexibility of an inductive approach, permitting the emergence of new insights and themes from the rich pool of data. This meticulous and comprehensive approach to primary data collection and analysis was instrumental in unearthing valuable insights that form the bedrock of this research.

3.5.2.1 Data Sources

In this study, we engaged professionals from various departments within technology companies that actively collaborate with the market research sector. These technology companies were selected based on their access to industry-specific data relevant to sustainability and consumer behaviour. The company-provided industry data included a wide range of information, such as market trends, consumer preferences, sustainability performance metrics, environmental impact data, and relevant market research reports.

The industry data shared with the respondents encompassed comprehensive insights into consumer behaviour, market dynamics, and sustainability-related metrics. This data was crucial for our research as it enabled participants to draw upon real-world industry insights when discussing their experiences and perspectives on sustainable branding strategies.

The specific types of industry data provided by the collaborating companies were tailored to the participants' roles and expertise within their respective organizations. For example, professionals with expertise in supply chain analytics had access to data related to supply chain sustainability, while those involved in sustainability reporting had access to environmental impact and performance data.

By utilizing this industry data, we aimed to ensure that the insights and perspectives gathered from the participants were well-informed and reflective of the challenges and opportunities faced by technology companies collaborating with the market research sector.

3.5.2.2. Participant Selection

Purposive sampling was employed as a deliberate and strategic method for participant selection in our research. The goal was to ensure that the chosen participants possessed the expertise and insights necessary to shed light on the intricate relationship between big data analytics, sustainability, and branding within the market research sector.

The process of participant selection began by identifying technology companies known for their active collaboration with the market research industry. This initial identification was facilitated through an extensive review of industry reports,

academic literature, and industry-specific conferences and events. Companies with a demonstrated track record of leveraging big data analytics for market research purposes were prioritized.

Upon identifying these companies, a systematic approach was taken to gain access to participants who held key roles in relevant departments. Access to these professionals was primarily established through a combination of outreach methods. Initial contact was made through industry-specific networking events and conferences, where researchers could establish rapport and express the research's objectives. Subsequently, formal invitations for participation were extended via email, detailing the research's scope and its importance in advancing sustainable branding strategies.

In response to the impact of COVID-19, which led to remote working patterns, virtual meetings and video conferencing became integral in securing participation from professionals who were geographically dispersed. These virtual platforms not only facilitated discussions but also proved to be a practical solution for ensuring timely engagement with the right participants.

By adopting purposive sampling and leveraging various outreach strategies, our research aimed to secure a diverse and knowledgeable group of 38 participants, representing 24 different companies across the global landscape of market research and data analytics. This rigorous approach to participant selection ensured that our dataset encompassed a wide spectrum of insights, thereby enhancing the depth and richness of our findings.

3.5.2.3. Field work: Semi structured Interviews

The primary data collection phase of this research was characterized by rigorous efforts to gather insights from a diverse group of domain experts. To ensure the utmost credibility and relevance of the data, a comprehensive approach was taken. A total of 38 interviews were conducted, featuring domain experts and industry specialists who had previously participated in the piloting phase. These participants were meticulously selected based on their direct influence on policy formulation and implementation within their respective organizations and market segments. It's worth noting that the selection process was more challenging than finding available participants, underlining the importance of pinpointing the right contributors.

To identify suitable participants, an exhaustive examination of their job profiles and professional online presence on platforms like social media and professional websites was conducted. Building a strong rapport with these experts prior to the interviews was paramount, ensuring a collaborative and open environment that facilitated richer discussions. This rapport-building effort bore fruit as participants not only provided valuable insights but also extended access to their professional networks, resulting in unexpected opportunities. For instance, a supply chain traceability company in Sweden, with an engineering base in India, extended a job offer to the researcher due to the productive engagement.

The participants in this study were undeniably top experts in their respective fields, representing a diverse spectrum of technology-related roles within the market research domain. From business analytics and design thinking to sustainability research, UN SDG advocacy, behavioural architecture, lean management, product management, branding, architecture, project consulting,

legal tech consulting, and fintech architecture, these experts brought multifaceted perspectives to the research. The interviews, averaging 55 minutes in duration, served as in-depth explorations into their wealth of knowledge and experience.

In this study, saturation was deemed to have been achieved after conducting 38 interviews with domain experts spanning eight countries. It's important to clarify the rationale behind this assertion. Saturation was considered reached when the insights and perspectives shared by participants began to exhibit redundancy. In other words, the themes, patterns, and information provided by successive interviewees started to align with those shared by earlier participants. New interviews were no longer yielding fundamentally novel perspectives or data that significantly expanded the understanding of the research questions and objectives.

3.5.2.4 Data Analysis

This section of the chapter discusses how collected data was processed and organized to gather rich information. Bringing order and structure to qualitative data was a tedious but fascinating process, which required creativity and time. The primary goal was to extract useful information that led to reliable research conclusions for decision-making. To achieve this, the data had to be thoroughly explored, transformed, and modelled to identify themes and patterns that provided valuable insights (Creswell & Creswell, 2018). Qualitative research required a detailed analysis, and thematic analysis was used to gain deeper understanding of the data and draw meaningful conclusions from it.

3.5.2.4.1 Thematic Analysis

Thematic analysis is one of the most widely used techniques by qualitative researchers. It involved identifying patterns and themes in the data set, analysing them to gain insights from the organized data. Thematic analysis's wide capacity to be applied across a range of theoretical and epistemological frameworks established its relevance in this research (Kiger & Varpio, 2020). Although this study included big data analytics, which went beyond analysis (Pappas et al., 2018), combining it with the new concepts of this study required a detailed thematic approach as it involved analysing experiences, attitudes, beliefs, and behaviours across a vast data set (Kiger & Varpio, 2020). It helped the researcher to understand and interpret the complexities of data from underlying themes and gain valuable insights.

This research was interlinked with the concepts of sustainability and branding with big data and business analytics. Therefore, uncovering hidden relationships between variables in an organized manner was highly necessary. It helped to better understand data and generate reliable results. As the concepts were widely used in the practitioner world, there was familiarity to a certain level while developing themes and codes. In this study, A Priori coding proved relevant. The themes were partly determined as part of this coding process guided through the research questions and existing theory in the literature review and later developed as interview questions (Terry et al., 2017).

The central idea or key concept developed from the transcripts and connected with the research question was generally described as a theme in Thematic analysis. The patterns in themes were actively constructed from a data set to answer the research questions, which could be approached on a deductive or inductive basis (Kiger & Varpio, 2020). This research used basic tools like

NVIVO software and Microsoft Excel for thematizing the thesis specifically for mapping and organizing, respectively.

3.5.2.4.2. Theme Identification

This research was carefully administered as it considered the need for an inductive A Priori coding approach, due to the multidisciplinary concepts in the thesis (Peple, Dennis et al., 2022). The conventional method, which focuses on a priori as a deductive and posteriori as an inductive approach, was deemed unsuitable for this research due to the complexity of the concepts involved. The concepts included in this research were sustainability, branding, big data, and business analytics. The last two concepts ruled out the need for coding, as they automated patterns and made meaningful codes. Conventional thinking that a priori coding limits the researcher to think beyond concepts was ruled out here, getting support from Creswell's notes (Creswell & Creswell, 2018).

The a priori coding process for a multidisciplinary approach was supported using existing literature (Peple, Dennis Gabriel, 2022). The a priori coding process involved the use of existing categories to code data from the existing theoretical framework and the research question (Terry et al., 2017). This helped to formulate the interview questions for further developing the research through an inductive approach from the semi-structured interviews conducted with domain experts from the developed conceptual framework. This helped to code the data that drew meaningful conclusions from the data and gained a deeper understanding of it.

The main aim of using a priori coding was to create more meaning to the categories while organizing the data which helped in theme identification. This was of high relevance when the topic area was multidisciplinary. This a priori coding only served as an organization of knowledge required to get the actual

result of this impact study (Nunes & Al-Mamari, 2008). The a priori coding in this inductive research was formulated to focus on research questions and objectives as a part of designing the data collection tools (Nunes & Al-Mamari, 2008). This helped in reaching faster theoretical saturation for researchers that used concepts from a multi-disciplinary approach (Pepple, Dennis et al., 2022).

3.5.2.4.3 Structure of the Thematic Analysis

The presentation of the inductive approach using a priori coding required a high level of justification, which was rarely seen in research. This study uniquely identified the advantage of using a priori coding with an inductive approach by identifying very few papers available in the literature that use a priori inductive approach, particularly in information systems research, as the study did not test its fit in a particular context. It attempted to understand a phenomenon that produced impactful research that had the potential to evolve a new theory, which could emerge from the huge data set on reaching theoretical saturation (Nunes & Al-Mamari, 2008b).

3.5.2.4.4 Reporting Methodology - 'Inductive A priori' Model

Even though several studies focused on using inductive approach and a priori coding, no study models were created for combining multidisciplinary theories and concepts that apply to new technologies like big data and business analytics with sustainability and branding. Therefore, a new model was created for future

researchers, termed the ‘Inductive A priori’ Model for multi-disciplinary research, which helps to explore relationships for impact studies.

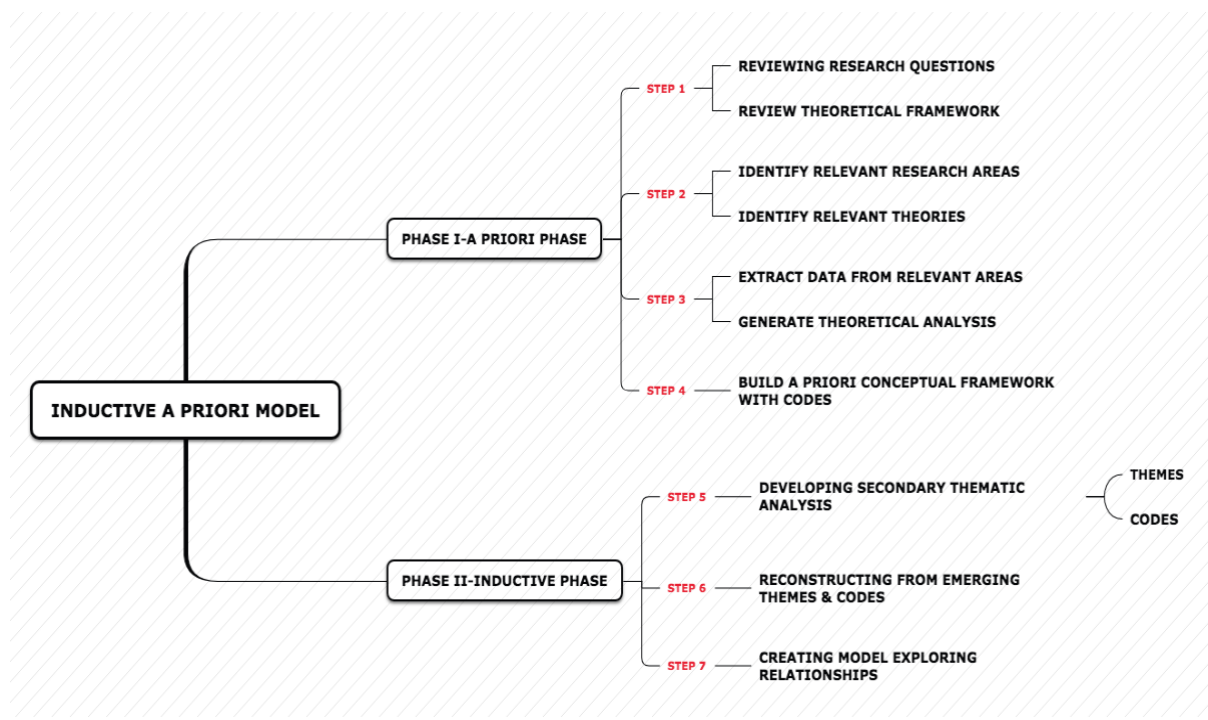


Figure 3.4: Reporting Methodology Using 'Inductive A priori Model'

Source: Created by Author (2023)

The Inductive A Priori model consisted of two phases: Phase I - A priori Phase and Phase II - Inductive phase. The a priori phase began with the development of research questions, followed by the identification of relevant areas associated with those questions and relevant theories and frameworks to organize the research's initial structure. The initial data was extracted from the thematic framework coded through A priori coding, which could be categorized and made consistent with the categories (Elliott, V., 2018). This helped build interview questions around relevant areas of the disciplines studied, thereby reducing the complexity of data saturation. One of the challenges of multidisciplinary qualitative research was that there was no standard methodological framework for guiding data saturation in the study (Creswell & Poth, 2016). With the

increasing complexity of problems and challenges faced by society, interdisciplinary collaboration and integration of knowledge from different fields had become essential for advancing research and finding solutions. No single discipline could fully address these complex issues on its own without multidisciplinary research (Caelli et al., 2003).

This research study strongly justified the use of the Inductive A Priori model for multi-disciplinary research by considering stakeholder dispositions (Wasicsko et al., 2004). The initial a priori coding phase of research through its conceptual framework was a classic approach to show that stakeholders' behaviours, characteristics, and perceptions were given utmost consideration. In this study, the conceptual framework was formulated as a set of categories or theories used to code the data and underlying themes. It ensured that the coding phase was systematic and organized for developing specific interview questions that reduced the complexity of data saturation and found the right profile of participants with a deeper understanding of the subject.

In Phase 2, this phase refined the a priori conceptual framework and developed a model that explored the relationships between variables (Grant & Osanloo, 2014). This was done by developing secondary thematic analysis of themes and codes, reconstructing emerging themes and codes, and creating a model that explained the relationships between the variables under investigation.

The reporting methodology for the Inductive A Priori model ensured that the research study was transparent, reproducible, and reliable. Researchers should have clearly stated the research questions and theoretical framework in their report and described the steps taken during Phase 1 to develop the a priori conceptual framework (Terry et al., 2017). In the results section, the research

should have presented the findings of their study and explained how these findings related to the research questions and theoretical framework.

Phase of Thematic analysis: Thematic analysis was continued as a part of developing secondary thematic analysis which occurred during the phase of interviews. Also, new themes and codes were added from the semi-structured interviews which, in turn, developed into a new framework. This resulted in a combination of a priori and inductive approach that explored relationships between the themes and codes for creating a sustainable impact study. The process and the principles followed in this phase were the same as the six-phase approach to Thematic analysis (Braun & Clarke, 2012), which comprised:

Step 1: Familiarizing Yourself with the Data - This phase involved transcribing the video and checking the video with the transcribed data for accuracy. Some of the participants helped to do the same as they had access to the recordings, which were saved in Google Drive with mutual access, and also to confirm that the transcribed data was used fully upon their consent.

Step 2: Generating Initial Codes - Every participant had equal access to their data, which was stored in Google Drive, and was given equal consideration as all of them were from middle management to senior management level.

Step 3: Searching for Themes - Themes were developed from the research aims and objectives, and some were later added using the Inductive a priori model. The themes were carefully added to ensure that the details were precise and coherent.

Step 4: Reviewing Potential Themes - This involved revisiting previously identified themes and looking for relationships and patterns between them. This

helped to uncover new insights that may not have been identified during the initial coding process.

Step 5: Defining and Naming Themes - This involved developing new categories to organize the data. Once these patterns were identified, they were named and defined to understand the underlying concepts.

Phase 6: Producing the Report - This involved synthesizing the data and drawing meaningful conclusions from it. This involved revisiting the evidence to identify patterns, analysing the data to understand the underlying concepts, and interpreting the results. The final themes were analysed and reported.

Table 3.5: Process of Thematic Analysis

PROCESS	ACTIVITY
Data Collection	Video interviews of participants were recorded using Zoom. The interviews were semi-structured.
Transcription	The video interviews were partially transcribed by zoom software and had to transcribed again manually as the software could not understand some of the English accents that changed with region.
Data Familiarisation	Revisiting the notes that was written during the interview and later after completing all the interviews.
Software Analysis	<ol style="list-style-type: none"> 1.AWS Transcription (amazon) 2.NVivo for mapping only due to limitations of understanding human feelings, beliefs and perspectives 3.Microsoft Excel for manual analysis as it resulted in providing meaningful data. 4.Microsoft Word for separating meaningful data derived from NVivo and Microsoft Excel

Initial Coding	Analysing the research aims and objectives in line with the data set to generate the codes.
Theme selection	Developed from the a priori coding and then skimming through the data set to identify new themes and justify existing themes.
Theme Review	The research aims and objectives along with the codes generated were reviewed to check existing and scope for new theme generation.
Theme Clarification	The reviewed themes are clarified to ensure the availability of meaningful data set.
Reporting	Analysing and generating meaningful data to report the impact of the study.

Source: Created by Author (2023)

3.5.2.4.5. Validity and Reliability of the Primary Data collected

Strong preparations had been made from the beginning, including rigorous analysis of the research approach and strategy. This provided a strong basis for building the conceptual framework through the a priori coding process using research questions. Piloting with a few participants in the initial stage helped prepare an initial plan before going to the field. Primary piloting began at the beginning of 2021, while the a priori inductive codes were tested from the conceptual framework. The supervisory team, which included the Supervisor and Director of Studies, face-validated the elaborated phase of the primary data collection interview structure. Several meetings were held in the same month as the researcher travelled for the first phase of data collection in India. With their immense support, the interview questions were refined to a high standard of validity and reliability to pursue the objectives with meaningful and logical data.

3.6 Ethical Considerations

In this research, all ethical issues were fully considered. As a result, the DBA supervisory team from the University of Wales Trinity Saint David, London Campus was the first to review and approve the interview protocol to ensure that the first step was taken with care and clarity for the participants. It ensured that all participants were given informed consent before taking part in the semi-structured video interview as part of this research. Participants were assured that the collected data would be protected and treated with privacy and respect, as explained to them before the interview. This ensured that participants gave genuine answers without fear or judgment from work or society as a result of anonymity in the semi-structured interviews (Husband, 2020).

Out of 45 positive respondents, 38 respondents ensured that they gave an audio or video interview, ensuring that the collected data was accurate and reliable from the right personalities in the industry who made an impact in the industry from the relevant areas of the research. Therefore, dealing with them was a high-priority issue to ensure that there was no risk of harm or discomfort to the respondents in any way. The participants were informed that the interview was not mandatory and was purely intended for academic purposes only.

The welfare rights of the participants for giving their valuable time for this academic research were given high priority and respected. The researcher ensured to honour any promises made to the participants in writing, and during the interview, confidentiality remained highly confidential. The researcher ensured that there was no conflict of interest, as informed by the university. The researcher exercised professional objectivity to fulfil the needs of the research. The results were reported honestly and without bias. The researcher ensured that the interview and participants adhered to relevant legal obligations of the course while conducting this research.

3.7. Section Summary

This section of the thesis introduces the research methodology that was used in the study. The purpose of this section was to provide a detailed description of the steps taken in conducting the research, including the research philosophy, approach, strategy, data collection, and analysis methods employed. The chapter began by discussing the research philosophy, which was the underlying belief system that guided the researcher's perspective on knowledge acquisition. The research approach referred to the overall framework used in the study, and the research strategy outlined the specific techniques used to collect data, including secondary and primary data collection methods. The validity and reliability of the primary data collected were also discussed, as well as the use of semi-structured interviews as part of the fieldwork process. Thematic analysis was used as the main data analysis method, with an emphasis on theme identification and the structure of the thematic analysis. Finally, ethical considerations were addressed to ensure that the study adhered to established ethical principles.

CHAPTER 4

ANALYSIS OF FINDINGS

4.1. Introduction

The analysis of findings represents the cornerstone of any research endeavor, where the raw data collected is transformed into meaningful insights, shedding light on the research questions and objectives. In this section, we delve into the examination and interpretation of both secondary and primary data, guided by established frameworks and methodologies. The journey through this analysis unveils a comprehensive understanding of the intricate relationship between sustainable branding and data-driven strategies, encompassing diverse dimensions of branding strategies and attributes.

As we embark on this analytical exploration, it is imperative to acknowledge the value of rigorous research methodologies and data sources. Our approach encompasses both secondary data, drawn from a wide array of scholarly works, and primary data, acquired through semi-structured interviews. These complementary sources offer a multi-dimensional perspective on the topic at hand, presenting a comprehensive view of how businesses are navigating the terrain of sustainable branding in the era of data-driven decision-making.

The foundation of our analysis rests on the a priori coding analysis of secondary data, where we synthesize insights from a plethora of research studies that have examined the intersection of sustainable branding and data-driven strategies. These studies, conducted by esteemed scholars (Creswell & Creswell, 2018), provide a rich tapestry of insights, spanning from the

importance of incorporating sustainability into branding strategies to the nuanced facets of green branding, cause-related branding, ethical branding, and sustainable supply chain management.

Concurrently, the inductive analysis of primary data collected through semi-structured interviews adds depth and context to our exploration. Through the voices of industry experts, we uncover the practical applications of sustainable branding strategies and the dynamics of integrating sustainability into branding efforts. This primary data infuses real-world experiences and perspectives into our analysis, bridging the gap between theory and practice (Braun & Clarke, 2012).

Our analytical journey encompasses not only the findings themselves but also the implications they hold for businesses, policymakers, and scholars (Mortati et al., 2023). By scrutinizing the synergy between data-driven strategies and sustainable branding, we aim to uncover valuable insights that can inform strategic decision-making, enhance brand reputation, and contribute to the broader discourse on sustainability in the business landscape.

In the following sections, we will navigate through the key findings and patterns that emerged from our analysis of both secondary and primary data. Each subsection will delve into specific themes, offering a nuanced understanding of the multifaceted realm of sustainable branding and its interplay with data-driven strategies. Through this comprehensive analysis of findings, we aspire to contribute to the growing body of knowledge in the field of sustainable branding, offering a roadmap for businesses seeking to embrace sustainability as a core tenet of their brand identity and strategic initiatives.

4.2. Analysis of Secondary data

The research journey into the intricate interplay between sustainable branding and data-driven strategies involves a critical juncture where we dissect the wealth of existing knowledge and insights encapsulated within secondary data sources. This section embarks on a comprehensive analysis of key findings extracted from an extensive selection of scholarly works, each contributing a distinct facet to the multifaceted landscape of sustainable branding.

Sustainable branding has evolved into a complex terrain with diverse strategies aimed at aligning brand identity with sustainability values and practices (Hambali et al., 2020). Insights from Meffert et al. (2010a) underscore the significance of effective communication in conveying the competitive advantage of sustainability, while Singh (2017) emphasizes the adoption of specific branding strategies for promoting sustainability.

Within this framework, the subsequent subsection delves into the core attributes underpinning the sustainable positioning of data-driven companies (Carah, 2017; Burrell & Fourcade, 2021). This exploration unravels the significance of sustainability attributes in regulating ethical data-driven practices and avoiding harm to marginalized populations. Pasquinelli et al. (2021) highlight the role of brand values such as sincerity, excitement, competence, and uniqueness in generating a sustainable impact.

The final subsection navigates through the perspectives of experts and researchers, offering insights into qualitative research methods as catalysts for gaining competitive advantage (Schäfer, 2022; Hsiung et al., 2021). It elucidates the value of qualitative research in informing place branding strategies and the importance of establishing causality relationships through frameworks (Sanchez-Planelles et al., 2021).

This comprehensive analysis of secondary data sources not only enriches our understanding of sustainable branding but also provides the contextual backdrop against which our primary data findings shall be examined. Each subsection in this section offers a glimpse into the multifaceted world of sustainable branding, painting a vivid portrait of its evolution, attributes, and methodologies for achieving competitive advantage.

4.2.1. Analysis of Branding Strategies of Data-Driven Companies

The literature review highlighted the importance of sustainable branding in contemporary business practices. The concept involved creating a brand identity that aligned with sustainability values and practices, such as using environmentally friendly materials and promoting social responsibility (Alvarado-Karste & Guzmán, 2020). The literature review suggested that data-driven companies could leverage big data analytics to create sustainable branding strategies, leading to improved brand recognition, increased customer loyalty, and competitive advantage. Sustainable branding aimed to communicate the competitive advantage of sustainability in firms and build a positive brand image (Khandelwal et al., 2021).

The a priori codes identified in the literature included sustainable branding strategies, transparency, authenticity, credibility, incorporation of Sustainable Development Goals (SDGs), and the triple bottom line. These codes were related to the conceptual framework by emphasizing the importance of sustainability in business practices, which could lead to long-term sustainability and contribute to larger initiatives while generating profits for the business (Cetindamar et al., 2022).

By collecting and analysing large amounts of data from various sources using machine learning algorithms, companies could personalize their branding strategies based on individual customer preferences, identify areas for improvement in sustainability efforts, and track progress toward achieving sustainability goals. Sustainable branding strategies involved adopting specific branding strategies that promoted sustainability, such as incorporating sustainability into the brand mission statement or partnering with organizations that promoted sustainable practices (Loučanová et al., 2021). Transparency, authenticity, and credibility were crucial attributes for achieving sustainable competitive advantage through sustainable branding (Alcaide et al., 2019). By incorporating SDGs into their sustainable branding strategies, companies could contribute to larger initiatives while building a positive brand image (Pike & Kerr, 2012).

Additionally, the integration of sustainability into a company's branding strategy could attract socially responsible investors, contribute to the development of a more responsible business ecosystem, and increase employee motivation and engagement (Pike & Kerr, 2012). The history of the evolution of the word 'sustainability' and its definition since it was first used by the World Council of Churches in 1974 was also discussed in the literature, highlighting the increasing awareness and importance of sustainability in modern business practices.

Overall, the literature review underscored the significance of sustainable branding in contemporary business practices. It advocated for creating a positive impact on society and the environment while generating profits for the business. The a priori codes identified in the literature emphasized the importance of sustainability in business practices and highlighted various strategies that could be employed to achieve sustainable branding. Other key findings were carefully added to the review of literature on table 11, showing a comprehensive outline.

Table 4.1: Analysis of branding strategies & Brand Attributes of data-driven companies

Author	Context	Findings
Hambali et al. (2020)	Sustainable branding involves creating a brand identity that aligns with sustainability values and practices.	Sustainable branding may be enhanced by incorporating environmental messages into the celebrity's persona and aligning the celebrity's values with the brand's sustainability efforts.
Meffert et al. (2010a)	Sustainable branding aims to counter the difficulty of communicating the competitive advantage of sustainability in firms.	Adopting sustainable growth strategies can improve a company's brand reputation, while failure to communicate sustainability initiatives effectively can lead to negative brand reputation and reduced competitiveness.
Singh (2017)	Businesses must adopt specific branding strategies that promote sustainability.	Adopting sustainable practices and collaborating between businesses, governments, and civil society is essential for companies to enhance their reputation, achieve long-term profitability and address global challenges.
(Gulisova et al., 2021)	Value of qualitative research in informing future place branding strategies and decision-making processes aimed at promoting sustainability in rural communities	Qualitative research is valuable in gaining deeper insights into stakeholder experiences and perspectives. This can inform future strategies and decision-making processes towards promoting sustainability in rural communities.
Alcaide et al. (2019)	Transparency, authenticity, and credibility are crucial branding attributes for achieving sustainable competitive advantage through sustainable branding.	High-value brands in the IT sector can improve their sustainability and financial performance by adopting eco-friendly strategies like transparency given the sector's challenges with energy consumption, materials usage, and e-waste.

Pike & Kerr (2012)	By incorporating Sustainable Development Goals (SDGs) into their sustainable branding strategies, companies can contribute to larger initiatives while building a positive brand image.	Prospective employees and expert opinions have different priorities when it comes to the most important attributes of an employer brand, emphasizing the need for organizations to tailor their employer branding strategies to their target audience.
Aerni (2021); Mhlanga et al. (2018)	Sustainable branding is becoming more familiar with the evolution of sustainability in business practices and part of corporate social responsibility.	Businesses need to take concrete action to achieve the SDGs by integrating them into their strategy and operations, collaborating with stakeholders, and reporting on progress towards achieving them while also being mindful of challenges related to inequality, exploitation, and environmental degradation.
Štreimikienė & Ahmed (2021)	The triple bottom line proposed by Elkington in 1999 influenced businesses towards social and environmental aspects, leading to long-term sustainability.	The study found that implementing corporate social responsibility positively affects brand reputation, loyalty, business performance, financial performance, and customer satisfaction, emphasizing the need for companies to adopt CSR for successful brand management and sustainability.
(Saviolo & Borney, 2021)	Achieving sustainable branding by focusing on integrating the brand and supply chain indicators	Proposes the need for framework for achieving sustainable branding that integrates brand and supply chain perspectives

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4.2.2. Identification of Key Brand Attributes for Sustainable Positioning

The literature review revealed various dimensions related to sustainable branding, including sustainability agenda, place branding, supply chain integration, transparency, and the triple bottom line. The fit between consumer and brand identity, and the identification and internalization forms of social influence had a significant and positive effect on perceived brand value. The values and beliefs communicated by the brand were found to be more important than whether the brand identity was more emotional or rational, as different consumer segments responded differently to emotional and rational brand identities (Alvarado-Karste & Guzmán, 2020). Scholars have emphasized the importance of interlinking strategic brand management with sustainability dimensions to align with enterprise goals and achieve the best possible results. Sustainable branding can help companies engage with stakeholders, promote sustainability, contribute to the Sustainable Development Goals (SDGs), and align their business operations, products, and services with SDGs.

The concept of SDGs was crucial to understanding sustainable branding since it provided a set of global goals to achieve sustainable development by 2030. The Global Reporting Initiative (GRI) standards and stakeholder engagement could determine which goals to prioritize for decision-making and assessments. SDG 17 is considered one of the most important SDGs as it could coordinate and interlink with every other goal. The partnership, technology, financial resources, and stakeholder involvement were essential elements to achieve these goals.

The literature review also highlighted the challenges faced in implementing sustainable branding practices, such as ineffective business strategies or frameworks. Supply chain integration in sustainable management practices had

gained attention among researchers, but studies had not yet established it due to vital enablers that defined inter- and intra-organizational sustainable management practices. Transparency was another dimension that involved connecting stakeholders within the supply chain system to manage information in the internal and external environment (Shou et al., 2022).

In conclusion, the a priori codes generated from the literature review could be categorized into different dimensions, including sustainability agenda, place branding, supply chain integration, transparency, and the triple bottom line. Stakeholder engagement, communication, education and training, contribution to SDGs, SDGs, GRI, business strategy, partnership, technology, financial resources, and stakeholders were essential elements for sustainable branding practices. Understanding these dimensions provided a robust conceptual framework for analysing brand attributes for sustainable positioning.

Table 8.2: Analysis of Brand Attributes of data-driven companies

Author	Context	Findings
(Carah, 2017)	Sustainability attributes in branding can regulate the ethical use of data-driven from the business environment.	Emphasizes the importance of using the right branding attributes to deliver data-driven results that mediate action from clients or consumers, which can benefit society as a whole.
(Burrell & Fourcade, 2021)	Regulating algorithms using the sustainability agenda is important to avoid taking advantage of marginalized populations.	Profit maximization in the digital world often disregards the need for sustainable practices and human values, thereby leading to negative implications for future generations
(Pasquinelli et al., 2021)	Place branding can generate sustainable impact through brand values created with sincerity, excitement, competence, sophistication, or uniqueness.	Brand values created with sincerity, excitement, competence, sophistication, or uniqueness can generate a sustainable impact, and understanding the similarities and differences between places and people in connection with branding attributes is crucial.
(Shou et al., 2022)	Supply chain management can be used as a branding strategy in sustainable study, focusing on transparency and traceability for sustainable reporting.	Different dimensions of sustainability associated with supply chain information, including governance, economic, social, ecological, and impact, among others.
(Alvarado-Karste & Guzmán, 2020)	Brand Equity through values and beliefs through customer experiences and preferences	The conveyed values and beliefs of the brand carry greater significance that distinct consumer segments respond differently to emotional and rational brand identities.

(Schäfer, 2022)	Different dimensions of sustainability are identified from different aspects of supply chain information.	The importance of transparency and connecting stakeholders in the supply chain system to manage information in the internal and external environment.
(Cetindamar et al., 2022)	Big data is significant in creating sustainable business performance in the post-pandemic era by reducing delivery time and costs while considering all factors relevant to sustainability.	Considering all factors relevant to sustainability, including economic, social, and environmental factors, is necessary to achieve sustainable business performance and improve supply chain activities.
(Hsiung et al., 2021)	Sustainability Partnerships through co-creation and brand value chain	Sustainable partnerships through brand value co-creation and dynamic brand value chain, also including the importance of shared experience perception configuration and resource sharing, as well as the role of co-production platforms in facilitating brand engagement.
(Baldauf et al., 2003)	Evaluating the consequences of brand equity management is crucial for measuring intangible assets in the new economy through brand performance.	Measures of perceived quality, brand loyalty, and brand awareness strongly affect firm performance, customer value, and willingness to buy
(Sanchez-Planelles et al., 2021)	Need for establishing causality relationships through frameworks.	Causal mechanisms that lead companies to embrace sustainability in a successful way and figure out the causality relationships between sustainable variables that will lead to expected outcomes.

Source: Created by Author (2023)

4.2.3. Qualitative Research Methods for Gaining Competitive Advantage

The analysis of the literature in the qualitative studies revealed evidence of branding strategies that focused on sustainability, including green branding, cause-related branding, ethical branding, and sustainable supply chain management. The study also emphasized the need to prioritize sustainability in branding strategies and to consider all factors such as economic, social, and environmental sustainability.

Several researchers have highlighted the importance of incorporating sustainability into branding strategies to gain a competitive advantage. For instance, Loučanová et al. (2021) suggested that incorporating sustainability into a brand's core values and branding strategies could help establish a competitive edge. Similarly, Koo and Loken (2022) recommended integrating sustainability efforts into branding strategies to enhance brand equity, consumer beliefs, and customer satisfaction.

Green branding has emerged as a popular branding strategy that involves using eco-friendly and sustainable materials for products, reducing waste and carbon footprint, and promoting environmental conservation (Khandelwal et al., 2021). Cause-related branding is another strategy that involves partnering with a social or environmental cause to promote awareness and support for a particular issue (Huertas-García et al., 2017).

Ethical branding is yet another approach that involves ensuring that the brand's values align with ethical principles such as fair trade, human rights, and animal welfare (Fan, 2005). However, researchers have also highlighted the potential ethical concerns that may arise with algorithmic branding, which uses big data

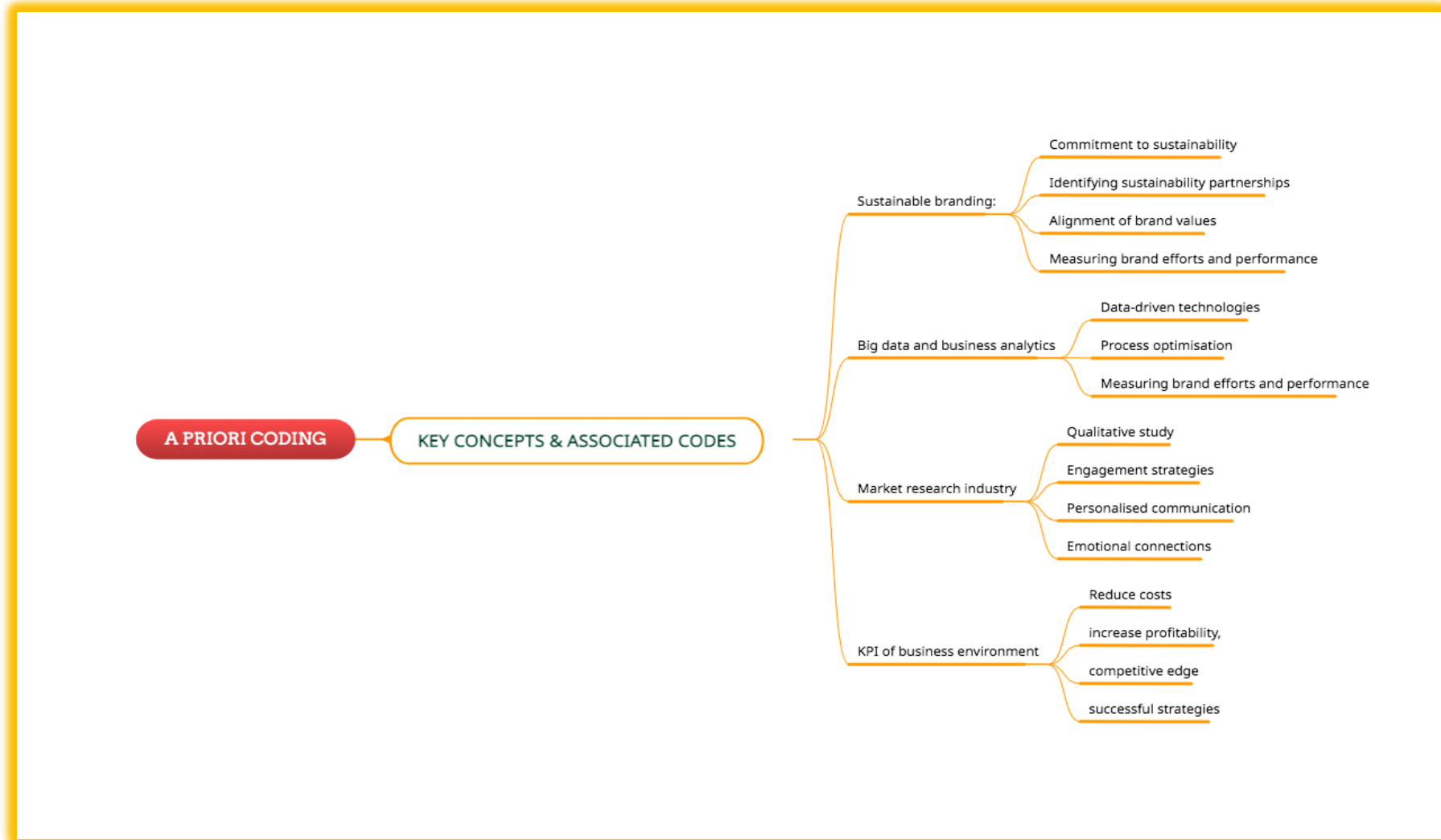
and business analytics to collect data from the internal and external environment of the business (Kozinets, 2021; Carah, 2017).

In addition, sustainable supply chain management has been identified as a branding strategy that can increase the brand image and overall business performance (Mihardjo et al., 2019). This involves integrating sustainability principles in the supply chain to yield high results for sustainable development. Place branding is another approach that can help establish sustainable development goals and respond effectively to crises (Pasquinelli et al., 2021).

Overall, the literature suggests that incorporating sustainability into branding strategies can help businesses gain a competitive advantage by enhancing brand equity, consumer beliefs, and customer satisfaction. Green branding, cause-related branding, ethical branding, algorithmic branding, sustainable supply chain management, and place branding are among the approaches that businesses can use to establish sustainable brand attributes and create value for their brand.

Figure 4.1: A priori codes connected with key Concepts from the review of literature

SOURCE: Created by Author (2023)



4.3. Analysis of Primary data

The analysis of findings used content analysis to present the qualitative data derived from the semi-structured interviews. A semi-automated qualitative content analysis technique was employed as the study entailed collaboration of contemporary concepts that were in the early stages of development (Creswell & Creswell, 2018). This technique focused on analysing the text-based data derived from transcribing the semi-structured interviews, which could uncover patterns and draw meaningful conclusions from the data.

However, the challenges of this data included not being able to rely completely on automated software analysis due to explicit and implicit meanings behind what was said, requiring careful attention to words and non-verbal cues. Complete manual analysis was also not possible as there was a chance that the researcher's own biases and values could shape the data interpretation in generating codes and reviewing themes (Braun & Clarke, 2012). Another source of bias could come from pre-invented mental models (Mortati et al., 2023) of the software that worked on a text recognition algorithm, which could not understand emotions, beliefs, or perspectives expressed.

Through careful analysis of the content of semi-structured interviews, this research uncovered valuable information that could be used to inform policy, practice, and future research. To ensure that the analysis of findings was well-organized and structured, it was necessary to present the research aims and objectives for covering the relevant aspects of this research.

4.3.1. Transcript Analysis Procedure

As part of compliance measures, consents regarding recording and transcribing video interviews for academic research were fully sought from participants. All participants were from multinational companies operating in different parts of the world; therefore, English was used as the communication medium. Transcription was done in two phases: the first phase was done automatically by Zoom software, and the second phase was done by Amazon Web Services Transcription services (AWS) with manual editing to check it against the video, specifically to ensure that English accents differed among participants and errors were found while using NVivo software. This long process ensured that the researcher was equipped with analysis even before using the support of software, and 100 percent acceptance on the transcribed data without errors for participants was achieved since it was sent back to them for final approval.

Since the semi-structured transcribed data is text-based, generating initial codes was the steppingstone to the analysis process. To reduce the number of manual tasks associated with qualitative data analysis, NVivo software was used. The software was regarded as the best in this regard among the research community (Hilal & Alabri, 2013). As a practitioner who used various qualitative software at work, the researcher ensured that the use of NVivo was limited to the extent that the software is built on the base of grounded theory, and the data set generated would be automated by “memoing” tools for theory-building, particularly from specific words in the data (Welsh, 2002).

Therefore, some nodes were manually added to ensure that no code was missed since sometimes it was challenging for the software to analyse meaningful data when it came to beliefs, emotions, or verbal cues that explained participants' perspectives. This helped build hierarchical structures and relationships between

the codes. The researcher ensured that the software was solely considered a tool to aid the analysis process and not for analysing the data. The researcher believed that no software tools could analyse qualitative data to a level where a new model or framework could be developed (Zamawe, 2015). Here, the researcher looked forward to developing a theory and an impact framework that demanded high analytical rigor concerning beliefs, emotions, and perspectives.

4.4 Description of Participants

The semi-structured qualitative interview included 38 participants, comprising specialists, middle-level managers, consultants, and management executives working in 30 multinational companies that were market leaders, three associations, and one of the directors of sustainable development from the United Nations. A study conducted through a leading Information systems journal found that an ideal qualitative study should generally consist of 20-30 participants (Marshall et al., 2013). This could be considered highly valid since this multidisciplinary research revealed patterns and themes that started to repeat with a reduction in codes and categories, ensuring that data saturation was achieved at around 32, and no new insights were found by pushing the limit to 38.

The selection process involved ensuring representation from various disciplines or fields of the information systems industry and different demographic groups, such as age, gender, ethnicity, and socioeconomic status. Furthermore, participants with varied levels of experience or expertise were recruited to capture a range of perspectives on the research topic. This approach was taken to provide a more comprehensive understanding of the research question and lead to more robust and insightful findings. The researcher chose different types of information systems companies that worked in different sectors of the market research industry to generate new solutions to business challenges and exchange ideas and

best practices. Participants included middle-level managers from specialists to senior management executives to ensure a wider range of perspectives and experiences that helped in decision-making. The researcher ensured an almost equal gender distribution and considered different age groups to avoid gender bias.

Most participants had at least five years of experience, ensuring valuable insights for the research. Participants from eight countries, mainly the United Kingdom, India, Sweden, Netherlands, Japan, China, USA, and UAE, were included as they were major producers and consumers of services from the market research industry. This helped in cultural understanding, the exchange of international relationships, especially concerning sustainable development through the market research industry, and the need for country-wise customization of market research services. The research participants had full knowledge to answer the questions of the semi-structured interview as senior-level practitioners in the industry.

Table 4.3: Description of Participants coded for anonymity

S/N	Participant ID	Gender	Industry	Position	industry Experience	country	Age
1	INTERVIEWEE 1	F	MARKET RESEARCH	DIRECTOR-SOUTH ASIA	10+	CHINA	35-40
2	INTERVIEWEE 2	M	MARKET RESEARCH	SENIOR MANAGER	10+	UNITED KINGDOM	35-40
3	INTERVIEWEE 3	M	BIG DATA & BUSINESS ANALYTICS	ASSISTANT MANAGER	5+	INDIA	30-35
4	INTERVIEWEE 4	M	MARKET RESEARCH	MANAGER	5+	USA	40-45
5	INTERVIEWEE 5	F	BIG DATA & BUSINESS ANALYTICS	ASSISTANT MANAGER	5+	CHINA	35-40
6	INTERVIEWEE 6	M	DIGITAL MARKETING/BRANDING	BRANDING SPECIALIST	5+	UAE	35-40
7	INTERVIEWEE 7	F	DIGITAL MARKETING/BRANDING	BRANDING MANAGER	5+	INDIA	30-35
8	INTERVIEWEE 8	F	MARKET RESEARCH	MANAGER	5+	CHINA	35-40
9	INTERVIEWEE 9	M	INFORMATION TECHNOLOGY	SENIOR MANAGER	10+	INDIA	40-45
10	INTERVIEWEE 10	F	INFORMATION TECHNOLOGY	SENIOR MANAGER	5+	INDIA	35-40
11	INTERVIEWEE 11	F	INFORMATION TECHNOLOGY	MANAGER	5+	USA	35-40

12	INTERVIEWEE 12	M	INFORMATION TECHNOLOGY	MANAGER	5+	NETHERLANDS	35-40
13	INTERVIEWEE 13	M	SUSTAINABLE DEVELOPMENT	ASSOCIATE DIRECTOR	10+	CHINA	40-45
14	INTERVIEWEE 14	M	SUSTAINABLE DEVELOPMENT	CONSULTANT	5+	UNITED KINGDOM	45-50
15	INTERVIEWEE 15	M	SUSTAINABLE DEVELOPMENT	CONSULTANT	5+	UNITED KINGDOM	40-45
16	INTERVIEWEE 16	M	SUSTAINABLE DEVELOPMENT	CONSULTANT	5+	INDIA	35-40
17	INTERVIEWEE 17	F	SUSTAINABLE DEVELOPMENT	CONSULTANT	5+	INDIA	40-45
18	INTERVIEWEE 18	M	SUSTAINABLE DEVELOPMENT	ESG CONSULTANT	10+	INDIA	40-45
19	INTERVIEWEE 19	F	SUSTAINABLE DEVELOPMENT	UN SDG	5+	UNITED KINGDOM	45-50
20	INTERVIEWEE 20	F	BIG DATA & BUSINESS ANALYTICS	LEAD CONSULTANT	5+	NETHERLANDS	35-40
21	INTERVIEWEE 21	M	BIG DATA & BUSINESS ANALYTICS	CONSULTANT	5+	UNITED KINGDOM	30-35
22	INTERVIEWEE 22	F	BIG DATA & BUSINESS ANALYTICS	CONSULTANT	5+	UNITED KINGDOM	30-35
23	INTERVIEWEE 23	M	BIG DATA & BUSINESS ANALYTICS	ASSISTANT MANAGER	5+	INDIA	30-35
24	INTERVIEWEE 24	M	MARKET RESEARCH	MANAGER	5+	UNITED KINGDOM	35-40
25	INTERVIEWEE 25	M	MARKET RESEARCH	DIRECTOR OF OPERATIONS	10+	UNITED KINGDOM	40-45
26	INTERVIEWEE 26	M	INFORMATION TECHNOLOGY	MANAGER	5+	INDIA	35-40
27	INTERVIEWEE 27	M	INFORMATION TECHNOLOGY	SENIOR MANAGER	10+	JAPAN	35-40
28	INTERVIEWEE 28	F	INFORMATION TECHNOLOGY	SENIOR MANAGER	10+	JAPAN	35-40
29	INTERVIEWEE 29	M	INFORMATION TECHNOLOGY	CONSULTANT	5+	INDIA	30-35
30	INTERVIEWEE 30	M	DIGITAL MARKETING/BRANDING	BRANDING SPECIALIST	5+	INDIA	25-30
31	INTERVIEWEE 31	F	INFORMATION TECHNOLOGY	MANAGER	5+	INDIA	30-35
32	INTERVIEWEE 32	F	SUSTAINABLE DEVELOPMENT	CONSULTANT	5+	INDIA	35-40
33	INTERVIEWEE 33	M	BIG DATA & BUSINESS ANALYTICS	ASSISTANT MANAGER	5+	USA	35-40
34	INTERVIEWEE 34	F	DIGITAL MARKETING/BRANDING	BRANDING MANAGER	5+	UAE	30-35
35	INTERVIEWEE 35	F	DIGITAL MARKETING/BRANDING	BRANDING SPECIALIST	5+	UAE	25-30
36	INTERVIEWEE 36	F	MARKET RESEARCH	MANAGER	5+	UNITED KINGDOM	30-35
37	INTERVIEWEE 37	M	MARKET RESEARCH	MANAGER	5+	UNITED KINGDOM	40-45
38	INTERVIEWEE 38	M	BIG DATA & BUSINESS ANALYTICS	LEAD CONSULTANT	10+	NETHERLANDS	35-40

Source: Created by Author (2023)

4.5 Findings from the interview

This section presents the detailed findings from the transcript data generated from the semi-structured interviews. The findings from the conducted interviews were analysed in relation to the research objectives and questions (Creswell & Creswell, 2018). The interviews were conducted with individuals who possessed relevant knowledge and experience in the field, and their responses provided a more in-depth understanding of the research objectives and questions.

The interview data was analysed thematically, highlighting the key themes and patterns that emerged from the participants' responses. By examining the findings in relation to the research objectives, the insights gained from the interview data informed the development of the theoretical framework and contributed to the overall understanding of the research topic. The interview questions were developed using the research questions and existing theory in the literature, with the objectives keeping the conversations focused on the multidisciplinary research.

4.5.1 Procedure for presentation of findings

In any research project, it was crucial to develop a clear and comprehensive understanding of the data being analysed. The initial a priori themes were pre-existing categories that researchers had in mind before conducting the study, based on the existing literature and their research objectives (Ryan & Bernard, 2003). However, during the coding process, it was not uncommon for new themes to emerge that were not initially considered. In this study, the initial a priori themes were developed based on the research questions and objectives, as well as the existing literature. However, as the data was analysed, new themes emerged that were not initially anticipated. These themes were derived directly from the

data and provided valuable insights (Griffith et al., 2008) that were not previously considered.

Therefore, the new themes that emerged during the coding process were not dismissed. Rather, they were carefully considered and integrated into the analysis. Doing so led to a more comprehensive and accurate understanding of the data and provided a more nuanced perspective on the research questions and objectives. By recognizing the importance of these newly identified themes, this study was able to more fully explore the relationship between sustainable branding, big data analytics, and business analytics, ultimately leading to more meaningful and impactful results.

Table 4.4: Relationship of Research Questions vs Interview Questions

Interview Questions	RQ1	RQ2	RQ3	RQ4
1. How does big data analysis help in creating a better understanding of consumer behaviour towards sustainable products or services?	✓			
2. Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?	✓			
3. What role do performance evaluation metrics play in measuring the success of sustainable branding strategies?	✓			
4. How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?	✓			
5. What are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?	✓			
6. Can you describe the importance of sustainability partnerships in developing and positioning sustainable branding strategies?		✓		
7. How can companies ensure compliance with data privacy laws in their efforts to develop sustainable branding strategies?		✓		
8. What are some examples of sustainable initiatives that have helped companies to create brand equity in the market research industry?		✓		
9. Can you explain how collaborations and partnerships can be leveraged to strengthen sustainable branding efforts?		✓		
10. How can qualitative research methods help in developing a deeper understanding of consumer perceptions towards sustainable branding?			✓	
11. In what ways can qualitative data complement the quantitative data used in big data analytics to gain a competitive edge?			✓	
12. Can you describe how insights gained through qualitative research can be used to identify behavioural patterns and preferences related to sustainable products or services?			✓	
13. How can businesses optimize their use of big data analytics to maximize ROI based on the insights generated from qualitative research?			✓	
14. How can sustainably branding strategies be integrated into existing data-driven operations to improve operational and cost efficiency?				✓
15. Can you describe how data collection techniques can be optimized to gather relevant insights for sustainable branding strategies?				✓
16. In what ways can predictive models and forecasting be used to enhance the effectiveness of sustainable branding strategies?				✓
17. Can you explain how simulations and real-time experiences can be used to test and refine sustainable branding strategies before implementation?				✓

**Table 16 showing the most connected interview questions to the research questions are ticked even though they are inter-linked as a part of the building relationship*

The process of data analysis is at the heart of any research endeavour, providing the bridge between raw information and meaningful insights (Patton, 2002; Miles et al., 2014). It is within this crucial stage that the intricacies of the research questions are unravelled, and the study's findings take shape. The focus of this section is to provide a comprehensive exploration of the data analysis process, specifically delving into the methodologies employed to extract and elucidate the emergent themes from the collected data. Furthermore, we aim to refine the presentation of these themes to offer a lucid and coherent narrative that enhances the reader's understanding of the research's core insights.

The data analysis phase is often characterized by its intricacies, nuances, and the artistry required to decipher patterns, connections, and latent meanings within the data (Creswell & Creswell, 2017; Braun & Clarke, 2006). As such, a meticulous approach was undertaken to ensure the robustness and credibility of the emergent themes that underpin the research findings. This section will provide a detailed account of the steps involved in this analytical journey, offering transparency into the methods used to identify, extract, and refine these themes.

Furthermore, we have taken considerable care in reevaluating the presentation of these emergent themes, with a paramount emphasis on clarity and coherence (Silverman, 2013; Flick, 2018). Recognizing the importance of effective communication, we have refined our approach to ensure that the themes are communicated in a manner that is not only accessible but also conducive to a comprehensive understanding of their implications.

In essence, this section serves as a testament to our commitment to the principles of rigorous research and effective communication (Yin, 2018). By elucidating the methodologies employed and enhancing the presentation of emergent themes, we

aim to provide readers with an unobstructed view of the intricate process that has culminated in the research's key findings. It is our belief that this refined approach will fortify the research's credibility and accessibility, ultimately contributing to a more comprehensive understanding of the research's contributions and implications.

The convergence of insights from secondary data sources and primary data interviews has provided a multifaceted understanding of the key themes underpinning sustainable branding in data-driven companies. This holistic approach ensures that our research findings are both theoretically grounded and practically relevant, offering valuable insights into the strategies employed by companies in the market research industry to achieve sustainability through branding.

4.5.2. Relationship between emerged Themes and Research questions

One of the paramount facets of the analysis of findings is elucidating the intricate relationship between the themes that emerged from the data and the fundamental research questions. This pivotal step not only aids the reader in comprehending how the findings align with the research questions but also elucidates how they collectively contribute to addressing these inquiries. The conceptualization of themes, as noted by Griffith et al. (2008), serves as a linchpin in the analysis, embodying the primary ideas and patterns that organically emerged from the amassed data.

Themes are indispensable in the analysis of findings as they provide a structured framework for categorizing and interpreting the collected information (Ryan & Bernard, 2003). They act as the connective tissue between the research questions or objectives, encapsulating the key areas of interest that the researcher sought to

explore. Thus, to effectively expound on the relationship between themes and research questions, it is imperative to articulate how each theme is intricately linked to each research question.

As articulated by Ryan and Bernard (2003), the process entails substantiating these connections through concrete examples that demonstrate how the data substantiates each theme. Furthermore, it necessitates a comprehensive explanation of how each theme contributes to the overarching research question, ensuring that the synthesis of themes not only answers these questions but also offers a deeper understanding of the nuanced intricacies within.

In the quest for clarity and rigor, this section also delves into the exploration of any unexpected or contradictory findings and their resonance with the overarching research questions. The meticulous exposition of this relationship underlines the critical role this section plays in providing a concise summary of the principal findings of the study and their significant contribution towards the attainment of the overarching research objectives. It serves as a testament to the research's thoroughness, ensuring that the reader comprehends not only the 'what' but also the 'how' and 'why' behind the research findings.

One important aspect of the analysis of findings was to explain the relationship between the themes that emerged from the data and the research questions. This helped the reader to understand how the findings related to the research questions and how they contributed to answering them by synthesizing the themes from the analysis (Griffith et al., 2008). Themes were important in the analysis of findings because they represented the main ideas or patterns that emerged from the data. They provided a way to categorize the data and make sense of the information that was collected (Ryan & Bernard, 2003). The themes that were identified were

typically related to the research questions or objectives, as they reflected the key areas of interest that the researcher set out to investigate.

In order to effectively explain the relationship between the themes and the research questions in the analysis of findings, the researcher needed to clearly articulate how each theme was related to each research question. This was done by providing examples of how the data supported each theme and by explaining how each theme contributed to answering the research question (Ryan & Bernard, 2003). Additionally, the researcher may have discussed any unexpected or contradictory findings and how they related to the overall research question.

Overall, the relationship between themes and research questions was a critical aspect of the analysis of findings section. By clearly explaining this relationship, the researcher provided a clear and concise summary of the main findings of the study and how they contributed to the overall research objectives.

Theme 1. Sustainability Partnerships and Initiatives

The exploration of sustainability partnerships and initiatives emerged as a prominent theme in our research. This theme was initially identified through an extensive review of secondary data sources, such as academic articles and reports (Hsiung et al., 2021). These sources shed light on how data-driven companies utilize big data and business analytics to identify and evaluate sustainability partnerships and initiatives. The insights gleaned from the secondary data sources guided our understanding of how these partnerships can be leveraged to build sustainable branding and enhance brand reputation.

To further substantiate our findings, we conducted a series of primary data interviews with industry experts. These interviews affirmed the significance of

sustainability partnerships and initiatives in the context of sustainable branding (Carah, 2017). Through these conversations, we gained valuable firsthand insights into how data-driven companies are actively utilizing data-driven approaches to optimize their sustainability efforts.

The amalgamation of secondary and primary data allowed us to construct a comprehensive narrative surrounding this theme. We observed that by analysing both quantitative and qualitative data, we could not only comprehend the theoretical framework behind sustainable branding but also extract practical, real-world strategies employed by companies in the market research industry.

Big data and business analytics were found to be helpful in identifying and evaluating sustainability partnerships and initiatives (Hsiung et al., 2021), which can be used to build sustainable branding and enhance brand reputation.

INTERVIEW QUESTION 2: Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?

INTERVIEWEE 19:

".....Big data and business analytics are crucial in identifying the right sustainability partnerships and initiatives to align with our brand's values. This not only helps us build sustainable branding but also enhances our brand reputation."

INTERVIEW QUESTION 5: What are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?

INTERVIEWEE 6:

".....By using big data and business analytics, we can assess the impact of our sustainability partnerships and initiatives on our brand performance. This information helps us make informed decisions about our sustainable branding strategy and investment."

The impact of branding strategies used by data-driven companies on sustainability partnerships and initiatives was analysed using data-driven approaches to identify best practices (Carah, 2017).

INTERVIEW QUESTION 6: Can you describe the importance of sustainability partnerships in developing and positioning sustainable branding strategies?

INTERVIEWEE 7:

"....."To position a sustainable branding strategy, companies should focus on forming meaningful partnerships and initiatives that align with their values and communicate their commitment to sustainability."

INTERVIEW QUESTION 9: Can you explain how collaborations and partnerships can be leveraged to strengthen sustainable branding efforts?

INTERVIEWEE 10:

... "Data-driven approaches can help companies identify successful strategies used by other companies in the market research industry and apply them to their own sustainability partnerships and initiatives."

The effectiveness of sustainability partnerships and initiatives in building sustainable brand equity can be analysed using qualitative studies, which can provide valuable insights for developing data-driven strategies to improve sustainable performance (Jraisat et al., 2022).

INTERVIEW QUESTION 11: In what ways can qualitative data complement the quantitative data used in big data analytics to gain a competitive edge?

INTERVIEWEE 25:

... "Qualitative study can reveal the underlying motivations and values behind sustainability partnerships, allowing companies to develop more strategic and impactful collaborations for building sustainable brand equity."

INTERVIEW QUESTION 13: How can businesses optimize their use of big data analytics to maximize ROI based on the insights generated from qualitative research?

INTERVIEWEE 2:

... "Through qualitative research, companies can gain a deeper understanding of the social and environmental impact of their sustainability initiatives, which can inform data-driven strategies for achieving optimal performance."

The theoretical framework for sustainable performance using sustainable branding strategy included sustainability partnerships and initiatives as key drivers of sustainability, which were optimized using data-driven approaches (Jraisat et al., 2022).

INTERVIEW QUESTION 14: How can sustainable branding strategies be integrated into existing data-driven operations to improve operational and cost efficiency?

INTERVIEWEE 18:

.....".. can help us leverage data-driven approaches to optimize sustainable performance. By collaborating with like-minded organizations and implementing sustainable practices, we can improve our brand reputation and drive long-term success."

INTERVIEW QUESTION 15: Can you describe how data collection techniques can be optimized to gather relevant insights for sustainable branding strategies?

INTERVIEWEE 28:

..... " it's important to focus on partnerships and initiatives that align with our values and mission. By using data-driven insights to evaluate the impact of our sustainability efforts, we can make informed decisions and drive positive change."

Theme 2. Brand Insights and Performance Evaluation

Our investigation into brand insights and performance evaluation emerged as another vital theme in our research. This theme initially surfaced from secondary data sources, where we delved into studies that highlighted the role of big data and business analytics in collecting and interpreting valuable insights about brand performance (Ibrahim et al., 2021). The secondary data review informed us of the power of data-driven analysis in understanding consumer behaviour towards sustainable products and services and how performance evaluation metrics play a pivotal role in measuring the success of sustainable branding strategies.

To fortify these insights, we engaged in primary data collection through interviews with industry experts. Their experiences and perspectives corroborated the importance of data-driven approaches in optimizing sustainable branding initiatives. This blend of secondary and primary data allowed us to construct a well-rounded understanding of how data-driven companies utilize insights into consumer behaviour and performance metrics to refine their sustainable branding strategies.

Big data and business analytics helped in collecting and interpreting valuable insights about brand performance (Ibrahim et al., 2021), which were used to optimize sustainable branding initiatives.

INTERVIEW QUESTION 1: How does big data analysis help in creating a better understanding of consumer behaviour towards sustainable products or services?

INTERVIEWEE 23:

“... ‘Big data and business analytics provide valuable insights into consumer behaviour, which helps us understand how our sustainable branding efforts are resonating with our target audience. This knowledge allows us to optimize our strategy and improve our overall brand performance.’”

INTERVIEW QUESTION 3: What role do performance evaluation metrics play in measuring the success of sustainable branding strategies?

INTERVIEWEE 21

” Through big data analysis, we can track the effectiveness of our sustainable branding initiatives and evaluate their ROI. This information helps us refine our approach and allocate resources effectively.”

The impact of branding strategies used by data-driven companies on brand insights and performance was analysed using data-driven approaches to identify best practices (Carah, 2017).

INTERVIEW QUESTION 6:

Can you describe the importance of sustainability partnerships in developing and positioning sustainable branding strategies?

INTERVIEWEE 38:

...."To create brand equity, companies need to evaluate their brand insights and performance regularly using data-driven approaches to identify areas of improvement and opportunities for growth which is possible through tie-ups with companies that work on such efforts"

INTERVIEW QUESTION 7: How can companies ensure compliance with data privacy laws in their efforts to develop sustainable branding strategies?

INTERVIEWEE 33:

.... "By analysing the impact of their branding strategies on brand insights and performance through data-driven approaches, companies can make informed decisions about how to optimize their branding efforts for maximum impact especially in cases that require compliance with privacy issues."

Qualitative study provided insights into how sustainable branding initiatives impact brand insights and performance, which were used to develop effective data-driven strategies for building sustainable brand equity (Abimbola, 2001).

INTERVIEW QUESTION 10: How can qualitative research methods help in developing a deeper understanding of consumer perceptions towards sustainable branding?

INTERVIEWEE 4:

.... "Qualitative research can uncover the nuances of how consumers perceive and respond to sustainable branding efforts, providing insights that enable companies to design more effective and compelling sustainability campaigns."

INTERVIEW QUESTION 13: How can businesses optimize their use of big data analytics to maximize ROI based on the insights generated from qualitative research?

INTERVIEWEE 37:

...."By analysing the qualitative data on sustainable branding initiatives, companies can identify the key drivers of brand performance, allowing them to make data-driven decisions to enhance their brand equity."

The theoretical framework for sustainable performance using sustainable branding strategy could have included brand insights and performance evaluation as key drivers of sustainable performance, which could have been optimized using data-driven approaches (Currie et al., 2020).

INTERVIEW QUESTION 16: In what ways can predictive models and forecasting be used to enhance the effectiveness of sustainable branding strategies?

INTERVIEWEE 17:

...."To ensure sustainable performance in data-driven companies, we need a theoretical framework that emphasizes brand insights and performance evaluation. By leveraging big data and analytics, we can gain valuable insights into consumer behaviour and preferences, which can inform our branding and marketing strategies."

INTERVIEWEE 35:

..... "A strong brand is essential for achieving sustainable performance in today's highly competitive marketplace. Our theoretical framework should prioritize brand insights and performance evaluation, using data-driven approaches to measure the effectiveness of our branding efforts and identify areas for improvement."

Theme 3. Customer Engagement and Loyalty

The theme of customer engagement and loyalty surfaced prominently during our research journey. It was initially unearthed from secondary data sources where we explored the ways in which big data and business analytics enable companies to build sustainable branding by providing insights into customer behavior and preferences (Kunz et al., 2017). This secondary data review emphasized the pivotal role of personalized and engaging customer experiences in fostering loyalty, which, in turn, strengthens sustainable branding.

To enhance the credibility of this theme, we engaged with industry experts through primary data interviews. These conversations reaffirmed the critical role that data-driven approaches play in creating a strong emotional connection with customers through sustainable branding. The synergy of secondary and primary data enabled us to construct a comprehensive narrative highlighting how data-driven companies employ customer insights to build long-lasting relationships and brand loyalty.

Big data and business analytics helped in building sustainable branding by providing insights into customer behaviour and preferences, which were used to create personalized and engaging customer experiences that built customer loyalty (Kunz et al., 2017).

INTERVIEW QUESTION 1&3: How does big data analysis help in creating a better understanding of consumer behaviour towards sustainable products or services? What role do performance evaluation metrics play in measuring the success of sustainable branding strategies?

INTERVIEWEE 30:

..... "Big data and business analytics enable us to understand our customers' preferences and behaviours, which allows us to personalize our communication and engagement strategies. By building a strong emotional connection with our customers through sustainable branding, we can foster loyalty and enhance customer retention."

INTERVIEW QUESTION 2: Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?

INTERVIEWEE 5:

..... "By leveraging big data and business analytics, we can identify actionable insights that help us develop customer-centric sustainable branding initiatives. This approach leads to increased customer engagement, advocacy and loyalty."

The attributes for positioning sustainable branding strategy to create brand equity included customer engagement and loyalty, which were measured and optimized using data-driven approaches (Alvarado-Karste & Guzmán, 2020).

INTERVIEW QUESTION 8: What are some examples of sustainable initiatives that have helped companies to create brand equity in the market research industry?

INTERVIEWEE 26:

...."Creating customer engagement and loyalty programs are key to building a

sustainable brand, and data-driven approaches can help companies measure and optimize these attributes."

INTERVIEWEE 15:

..... "Sustainable branding strategies that prioritize customer engagement and loyalty can lead to long-term success and profitability, as customers are more likely to remain loyal to brands that align with their values."

Qualitative study provided insights into how sustainable branding initiatives impacted customer engagement and loyalty, which were used to develop effective data-driven strategies for building sustainable brand equity (Kim & Ko, 2012).

INTERVIEW QUESTION 11: In what ways can qualitative data complement the quantitative data used in big data analytics to gain a competitive edge?

INTERVIEWEE 32:

..." Qualitative study can provide valuable insights into the emotional connections between customers and sustainable brands, enabling companies to develop targeted engagement strategies that foster long-lasting loyalty."

INTERVIEW QUESTION 12: Can you describe how insights gained through qualitative research can be used to identify behavioural patterns and preferences related to sustainable products or services?

INTERVIEWEE 14:

"By understanding the perspectives and expectations of conscious consumers through qualitative research, companies can tailor their sustainability efforts to meet customer needs and preferences, ultimately strengthening their brand equity."

Theoretical framework for sustainable performance using sustainable branding strategy includes customer engagement and loyalty as key drivers of brand equity, which can be optimized using data-driven approaches (Kunz et al., 2017).

INTERVIEW QUESTION 17: Can you explain how simulations and real-time experiences can be used to test and refine sustainable branding strategies before implementation?

INTERVIEWEE 12:

..."Engaging customers and cultivating loyalty are critical components of sustainable branding strategy. By incorporating customer engagement and loyalty into our theoretical framework, we can use data-driven approaches to strengthen our relationships with consumers and build a loyal customer base."

INTERVIEWEE 29:

..."Our theoretical framework for sustainable performance should prioritize customer engagement and loyalty as key drivers of brand equity. By analysing customer data and using data-driven approaches to personalize our marketing and communication strategies, we can strengthen our brand and drive long-term success."

Theme 4. Operational Efficiency and Cost-Effectiveness

Our investigation into operational efficiency and cost-effectiveness as key aspects of sustainable branding formed another significant theme in our research. This theme was first uncovered in secondary data sources where we examined how big data and business analytics identify areas of operational inefficiency and cost-effectiveness (Cetindamar et al., 2022). The secondary data review illustrated how data-driven companies address these challenges through sustainable branding initiatives, optimizing resource usage, and reducing waste.

To further validate these findings, we conducted primary data interviews with industry experts who shared practical examples of how data-driven strategies can lead to significant cost savings while enhancing a brand's sustainability credentials. The amalgamation of secondary and primary data allowed us to construct a comprehensive narrative showcasing how data-driven companies leverage insights from data analysis to drive operational efficiency and cost-effectiveness through sustainable branding.

Big data and business analytics helped in identifying areas of operational inefficiency and cost-effectiveness, which were addressed through sustainable branding initiatives that optimized resource usage and reduced waste.

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 20:

... "Big data and business analytics can help us identify areas of operational inefficiency and cost-effectiveness, which can be addressed through sustainable

branding initiatives. For example, optimizing resource usage and reducing waste can lead to significant cost savings and enhance our brand's sustainability credentials."

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI? How can businesses optimize their use of big data analytics to maximize ROI based on the insights generated from qualitative research?

INTERVIEWEE 3:

....."By using big data and business analytics, we can measure the impact of our sustainable branding initiatives on our operations and bottom line. This approach is not only good for the environment but also makes good business sense."

The impact of branding strategies used by data-driven companies on operational efficiency and cost-effectiveness can be analysed using data-driven approaches to identify best practices (Cetindamar et al., 2022).

INTERVIEW QUESTION 6: Can you describe the importance of sustainability partnerships in developing and positioning sustainable branding strategies?

INTERVIEWEE 22:

...."To achieve operational efficiency and cost-effectiveness, data-driven companies can analyse the impact of their branding strategies on these attributes and identify best practices."

INTERVIEWEE 1:

... "Effective branding strategies that prioritize operational efficiency and cost-effectiveness can help companies reduce costs and increase profitability, while also communicating their commitment to sustainability."

A qualitative study provided insights into the effectiveness of sustainable branding initiatives in reducing costs and increasing operational efficiency, which were used to develop data-driven strategies for sustainable performance (Burrell & Fourcade, 2021).

INTERVIEW QUESTION 13: How can businesses optimize their use of big data analytics to maximize ROI based on the insights generated from qualitative research?

INTERVIEWEE 9:

... "Qualitative research can help companies identify the most cost-effective and efficient sustainability practices, enabling them to optimize their operations while reducing costs and environmental impact."

INTERVIEWEE 8:

... "Through qualitative study, companies can gain a comprehensive picture of the benefits and challenges of implementing sustainable practices, helping them to develop data-driven strategies that improve operational efficiency and drive sustainable performance."

The theoretical framework for sustainable performance using sustainable branding strategy may have included operational efficiency and cost-effectiveness as key drivers of sustainability, which could be optimized using data-driven approaches (Saviolo & Borney, 2021).

INTERVIEW QUESTION 14: How can sustainable branding strategies be integrated into existing data-driven operations to improve operational and cost efficiency?

INTERVIEWEE 16:

..."Operational efficiency and cost-effectiveness are crucial factors in achieving sustainable performance. By developing a theoretical framework that prioritizes these drivers and uses data-driven approaches to optimize our operations, we can reduce costs and minimize our environmental impact."

INTERVIEWEE 13:

"To achieve sustainable performance using sustainable branding strategy, we need a theoretical framework that emphasizes operational efficiency and cost-effectiveness. By leveraging big data and analytics to identify opportunities for optimization and improvement, we can drive long-term success while minimizing our resource usage."

4.5.3. Relationship between emerged Themes and Research objectives

In any research study, the research objectives play a crucial role in guiding the research process and helping the researcher to achieve their intended outcomes. The themes generated from the analysis of the research data can provide valuable insights into the research objectives and help to answer the research questions (Griffith et al., 2008). Understanding the relationship between the themes and the research objectives is important in determining the relevance of the research findings and drawing conclusions that align with the study's objectives. In this section, we will explore how the themes generated from the data analysis relate to the research objectives and how they contributed to achieving the intended research outcomes. By examining these relationships, we can gain a deeper understanding of the significance of the research findings and their implications for future research and practice in the field.

By examining these relationships, we can gain a deeper understanding of the significance of the research findings and their implications for future research and practice in the field. the amalgamation of insights from secondary data sources and primary data interviews has allowed us to identify and understand the key themes underpinning sustainable branding in data-driven companies. This holistic approach ensures that our research findings are both theoretically grounded and practically relevant, offering valuable insights into the strategies employed by companies in the market research industry to achieve sustainability through branding.

Theme 1: Sustainability Partnerships and Initiatives

This theme emerged from a comprehensive review of the existing literature. Our exploration of the secondary data sources revealed that sustainable branding and big data analytics are instrumental in guiding companies on how to form sustainable partnerships and initiatives that align with environmental and societal goals (Raut et al., 2019). The secondary data review not only provided insights into the theoretical underpinnings but also demonstrated practical examples of how data-driven companies have successfully implemented these strategies.

To further substantiate these findings, we conducted primary data interviews with industry experts. These interviews reaffirmed the critical role of sustainable branding and big data analytics in establishing partnerships and initiatives aimed at promoting sustainability. The blending of secondary and primary data allowed us to construct a holistic understanding of how sustainable partnerships and initiatives are pivotal components of sustainable branding.

Reviewing the literature on the impact of sustainable branding and big data analytics can help to understand how companies can form sustainable partnerships and initiatives through sustainable branding (Raut et al., 2019).

INTERVIEW QUESTION 2: Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?

INTERVIEWEE 5:

... “Sustainable branding and big data analytics are vital for companies seeking to forge sustainable partnerships and initiatives that benefit both the environment and society.”

INTERVIEW QUESTION 16: In what ways can predictive models and forecasting be used to enhance the effectiveness of sustainable branding strategies?

INTERVIEWEE 30:

... "The literature shows that companies can leverage sustainable branding and big data analytics to establish lasting partnerships and initiatives that promote sustainability and contribute to a better future."

Understanding the impact of branding strategies used by data-driven companies in the market research industry can provide insights into how companies can collaborate with others for sustainable initiatives through sustainable branding (Kunz et al., 2017).

INTERVIEW QUESTION 8: What are some examples of sustainable initiatives that have helped companies to create brand equity in the market research industry?

INTERVIEWEE 1:

... "Data-driven companies in the market research industry can leverage sustainable branding to collaborate with other companies for sustainable initiatives. By incorporating sustainability into their branding strategies, they can attract like-minded businesses and build strong partnerships towards a common goal."

INTERVIEW QUESTION 2: Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?

INTERVIEWEE7: "Sustainable branding is not just about promoting eco-friendly practices but also creating more socially responsible brands. By communicating their commitment to social causes through their branding, data-driven companies can connect with consumers who value ethical and sustainable practices."

Identifying key brand attributes for sustainable branding helped companies understand how to position themselves for sustainable partnerships and initiatives through data analytics (Koo & Loken, 2022).

INTERVIEW QUESTION 5: What are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?

INTERVIEWEE 23:

.... "Identifying the key brand attributes for sustainable branding through data analytics is crucial in positioning companies for successful sustainable partnerships and initiatives."

INTERVIEWEE 9:

.... "Companies can leverage data analytics to identify the key brand attributes necessary for sustainable branding, allowing them to position themselves as valuable partners in sustainability initiatives."

Developing a theoretical framework for sustainable performance helped companies to understand the role of sustainability partnerships and initiatives in achieving sustainable branding (Sanchez-Planelles et al., 2021).

INTERVIEW QUESTION 13: How can businesses optimize their use of big data analytics to maximize ROI based on the insights generated from qualitative research?

INTERVIEWEE 18:

... "Sustainability partnerships and initiatives are key components in achieving sustainable branding. A theoretical framework for sustainable performance can help companies identify and leverage these partnerships to create impactful and meaningful sustainability initiatives."

INTERVIEWEE 25:

.... "Collaborating with sustainable partners and implementing sustainable initiatives is no longer an option but a necessity in the market research industry. A theoretical framework for sustainable performance can provide guidance on how to develop and maintain effective partnerships that align with the company's values and goals."

Theme 2: Brand Insights and Performance Evaluation

Our exploration into brand insights and performance evaluation as a theme was rooted in an extensive review of secondary data sources. We delved into studies that underscored the impact of sustainable branding and big data analytics in helping companies gain valuable brand insights and assess their performance (Ibrahim et al., 2021). The secondary data review illuminated the ways in which data-driven approaches enhance the understanding of consumer behaviour and the measurement of brand success.

To reinforce these insights, we engaged in primary data interviews with industry experts. These conversations validated the significance of data-driven analysis in comprehending consumer behaviour and evaluating brand performance in the context of sustainable branding. The synergy of secondary and primary data provided us with a well-rounded perspective on how companies leverage insights and performance metrics for sustainable branding.

Reviewing the literature on the impact of sustainable branding and big data analytics helped to understand how companies can gain brand insights and evaluate their performance through sustainable branding (Ibrahim et al., 2021).

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 23:

..... "By reviewing the impact of sustainable branding and big data analytics, companies can gain valuable insights into their brand performance and identify areas for improvement."

INTERVIEW QUESTION 2 & 4: Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands? How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 3:

... "Through sustainable branding and big data analytics, companies can unlock a wealth of information on their brand's sustainability and use this knowledge to evaluate their performance and enhance their reputation."

Understanding the impact of branding strategies used by data-driven companies in the market research industry can provide insights into how companies can use brand insights and performance evaluation for sustainable branding (Alvarado-Karste & Guzmán, 2020).

INTERVIEW QUESTION 15: Can you describe how data collection techniques can be optimized to gather relevant insights for sustainable branding strategies?

INTERVIEWEE 21:

... "Brand insights and performance evaluation are crucial for data-driven companies in the market research industry to understand the impact of their branding strategies on sustainability. By tracking key metrics such as brand awareness, perception, and loyalty, they can identify areas where they need to improve their sustainable branding efforts."

INTERVIEW QUESTION 17: Can you explain how simulations and real-time experiences can be used to test and refine sustainable branding strategies before implementation?

INTERVIEWEE 25:

...."Measuring the success of sustainable branding initiatives can be challenging, but it's essential to evaluate the impact of these efforts. Data-driven companies can use their expertise to collect and analyse data on consumer behaviour and preferences, enabling them to refine their sustainable branding strategies continually."

Identifying key brand attributes for sustainable branding helped companies understand how to gain brand insights and evaluate their performance through data analytics (Alvarado-Karste & Guzmán, 2020).

INTERVIEW QUESTION 6: Can you describe the importance of sustainability partnerships in developing and positioning sustainable branding strategies?

INTERVIEWEE 16:

.... "Understanding the key brand attributes for sustainable branding through data analytics enables companies to gain valuable insights into their brand's performance and make data-driven decisions."

INTERVIEWEE 31:

..... "By identifying key brand attributes through data analytics, companies can

evaluate their sustainable branding strategy, measure brand equity, and optimize their approach to create a more sustainable future."

Developing a theoretical framework for sustainable performance can help companies understand the role of brand insights and performance evaluation in achieving sustainable branding (Saviolo & Borney, 2021).

INTERVIEW QUESTION 3: What role do performance evaluation metrics play in measuring the success of sustainable branding strategies?

INTERVIEWEE 22:

"Brand insights and performance evaluation play a critical role in understanding the impact of sustainable branding strategies. A theoretical framework for sustainable performance can help companies assess the effectiveness of their branding efforts and make data-driven decisions for future strategies."

INTERVIEW QUESTION 11: In what ways can qualitative data complement the quantitative data used in big data analytics to gain a competitive edge?

INTERVIEWEE 2:

... "Qualitative data adds context, depth, and understanding to quantitative data by providing insights into customer behaviour, feelings, and motivations. This can help identify new opportunities, improve products, and enhance the overall customer experience."

Theme 3: Customer Engagement and Loyalty

The theme of customer engagement and loyalty emerged from a thorough examination of secondary data sources. Our review encompassed studies that emphasized how sustainable branding and big data analytics help companies create personalized customer experiences, fostering customer engagement and loyalty (Carah, 2017). The secondary data review showcased the pivotal role of data-driven strategies in aligning with consumer values and priorities.

To fortify these insights, we conducted primary data interviews with industry experts. These interviews confirmed the importance of data-driven approaches in building meaningful connections with customers through sustainable branding. The amalgamation of secondary and primary data allowed us to construct a comprehensive narrative illustrating how data-driven companies employ customer insights to drive long-lasting relationships and brand loyalty.

Reviewing the literature on the impact of sustainable branding and big data analytics can help to understand how companies can use customer engagement and loyalty as a key factor for building sustainability (Carah, 2017).

INTERVIEW QUESTION 1: How does big data analysis help in creating a better understanding of consumer behaviour towards sustainable products or services?

INTERVIEWEE 6:

... "Companies can use sustainable branding and big data analytics to engage customers and build loyalty by creating more sustainable products and services that align with consumers' values and priorities."

INTERVIEW QUESTION 16: In what ways can predictive models and forecasting be used to enhance the effectiveness of sustainable branding strategies?

INTERVIEWEE 33:

... "The literature highlights the importance of customer engagement and loyalty in building sustainability, and how sustainable branding and big data analytics can help companies create meaningful connections with their audience."

Understanding the impact of branding strategies used by data-driven companies in the market research industry can provide insights into how companies can leverage customer engagement and loyalty to achieve sustainable branding (Nyagadza et al., 2020).

INTERVIEW QUESTION 17: Can you explain how simulations and real-time experiences can be used to test and refine sustainable branding strategies before implementation?

INTERVIEWEE 27:

... "Customer engagement and loyalty are critical for sustainable branding efforts. By creating meaningful experiences for their customers that align with their values and beliefs, data-driven companies can establish long-term relationships and foster brand advocacy."

INTERVIEWEE 29:

..."Building trust with consumers is key to achieving sustainable branding. By engaging with customers through transparent communication and actively seeking feedback, data-driven companies can demonstrate their commitment to sustainability and strengthen their brand reputation."

Identifying key brand attributes for sustainable branding helped companies understand how to position themselves for customer engagement and loyalty through data analytics (Kunz et al., 2017).

INTERVIEW QUESTION 9: Can you explain how collaborations and partnerships can be leveraged to strengthen sustainable branding efforts?

INTERVIEWEE 21:

..... "Data analytics can help companies identify the key brand attributes necessary for building customer engagement and loyalty through sustainable branding."

INTERVIEWEE 38:

..... "By leveraging data analytics to understand what matters most to customers, companies can tailor their sustainable branding efforts to engage their audience and foster lasting customer loyalty."

Developing a theoretical framework for sustainable performance can help companies understand the role of customer engagement and loyalty in achieving sustainable branding (Kunz et al., 2017).

INTERVIEW QUESTION 10 How can qualitative research methods help in developing a deeper understanding of consumer perceptions towards sustainable branding?

INTERVIEWEE 36:

.... "Customer engagement and loyalty are essential in achieving sustainable branding success. A theoretical framework for sustainable performance can help companies understand how to effectively engage with customers, build loyalty and align with their preferences and expectations."

INTERVIEW QUESTION 12 - Can you describe how insights gained through qualitative research can be used to identify behavioural patterns and preferences related to sustainable products or services?

INTERVIEWEE 37:

... "Customers play a vital role in driving sustainable branding strategies. Companies need to involve customers in their journey towards sustainability by building trust and transparency. A theoretical framework for sustainable performance can guide companies in creating customer-centric approaches that deliver long-term value."

Theme 4: Operational Efficiency and Cost-Effectiveness

Our exploration into operational efficiency and cost-effectiveness as a theme was grounded in an extensive review of secondary data sources. We examined studies highlighting how big data and business analytics identify areas of operational inefficiency and cost-effectiveness, which can be addressed through sustainable branding initiatives (El Hilali et al., 2021). The secondary data review underscored the role of data-driven strategies in reducing costs and improving resource usage.

To validate these findings, we engaged in primary data interviews with industry experts. These interviews reinforced the critical role of sustainable branding and data analytics in improving operational efficiency and cost-effectiveness while advancing sustainability goals. The convergence of secondary and primary data provided a comprehensive understanding of how data-driven companies leverage insights from data analysis to drive operational excellence through sustainable branding.

Reviewing the literature on the impact of sustainable branding and big data analytics can help to understand how companies can improve operational efficiency and cost-effectiveness through sustainable branding (El Hilali et al., 2021).

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 33:

... "Sustainable branding and big data analytics can play a key role in improving

operational efficiency and cost-effectiveness for companies looking to reduce their environmental footprint and drive sustainability efforts."

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 20:

... "By leveraging sustainable branding and big data analytics, companies can optimize their operations and reduce costs while simultaneously advancing their sustainability goals."

Understanding the impact of branding strategies used by data-driven companies in the market research industry provided insights into how companies could optimize their operations for cost-effectiveness through sustainable branding (Pasquarelli et al., 2021).

INTERVIEW QUESTION 17: Can you explain how simulations and real-time experiences can be used to test and refine sustainable branding strategies before implementation?

INTERVIEWEE 11:

... "Operational efficiency and cost-effectiveness are essential considerations for data-driven companies in the market research industry. By adopting sustainable practices in their operations, they can reduce costs and improve their environmental footprint while also enhancing their brand image."

INTERVIEWEE 34:

....."Sustainable branding is not just about marketing initiatives; it's about integrating sustainability into every aspect of a company's operations. By prioritizing sustainability and implementing eco-friendly practices, data-driven companies can reduce their carbon footprint and create a positive impact on the environment."

Identifying key brand attributes for sustainable branding can help companies understand how to improve their operations and reduce costs through data analytics (Cetindamar et al., 2022).

INTERVIEW QUESTION 14: How can sustainable branding strategies be integrated into existing data-driven operations to improve operational and cost efficiency?

INTERVIEWEE 17:

..... "Identifying key brand attributes for sustainable branding through data analytics can help companies improve their operational efficiency and cost-effectiveness while advancing their sustainability goals."

INTERVIEWEE13:

..... "Through data analytics, companies can identify sustainable practices that reduce costs and improve efficiency, positioning them as leaders in sustainability while delivering value to their shareholders."

Developing a theoretical framework for sustainable performance helped companies to understand the role of operational efficiency and cost-effectiveness in achieving sustainable branding (Lichtenthaler, 2021).

INTERVIEW QUESTION 3: What role do performance evaluation metrics play in measuring the success of sustainable branding strategies?

INTERVIEWEE 35:

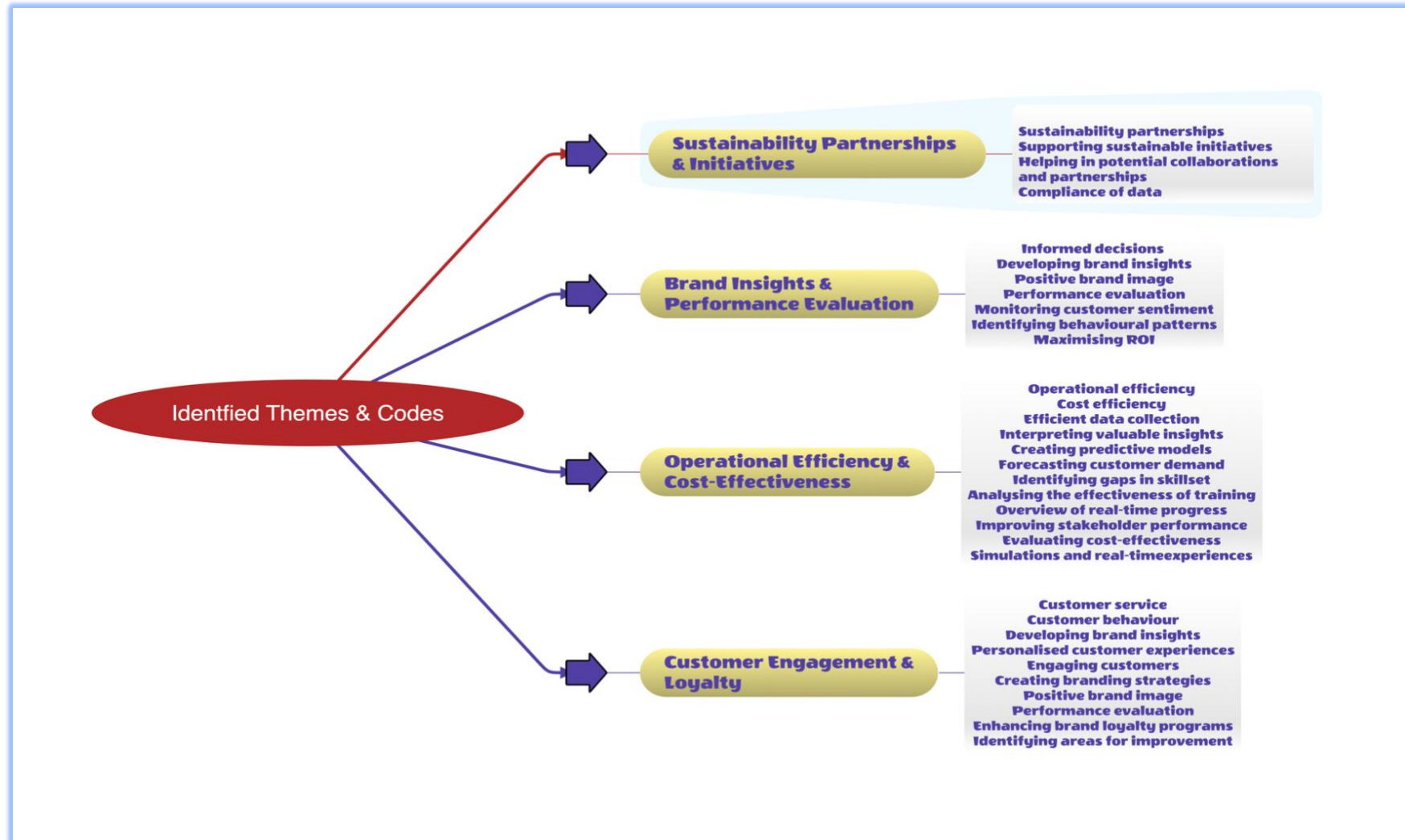
... "Operational efficiency and cost-effectiveness are critical aspects of sustainable branding. A theoretical framework for sustainable performance can help companies optimize operations, reduce waste and costs while delivering sustainable solutions."

INTERVIEW QUESTION 13: How can businesses optimize their use of big data analytics to maximize ROI based on the insights generated from qualitative research?

INTERVIEWEE 20:

... "Sustainable branding is not only good for the planet but also for the bottom line. Developing an efficient and cost-effective strategy is crucial to achieve long-term sustainability. A theoretical framework for sustainable performance can assist companies in identifying opportunities to improve operational efficiency and reduce costs while maintaining environmental and social responsibility."

Figure 4.2: Emerged Themes & Codes from Data Analysis



Source: Created by Author (2023)

4.6. Analysing Constructs & Relationships for Competitive Advantage

This sub-section unravels the significance of big data and analytics in deciphering consumer perceptions and expectations of sustainability, as well as market trends and opportunities (Gulisova et al., 2021). It becomes evident that leveraging these insights empowers organizations to develop sustainable branding strategies aligned with consumer values and preferences, fostering enhanced customer engagement, loyalty, and a competitive edge (Abimbola, 2001).

Our exploration is anchored in the understanding that big data and business analytics are potent tools, offering profound insights into a company's sustainability performance and revealing opportunities for improvement (Lichtenthaler, 2021). These insights are pivotal in crafting sustainable branding strategies that resonate with consumer values, thereby fortifying brand image and enhancing reputation (Khandelwal et al., 2021). Data-driven companies could leverage big data and business analytics to develop effective sustainable branding strategies that enhance customer engagement, loyalty, and brand equity (Sanchez-Planelles et al., 2021).

As we delve into the following sections, we shed light on the constructs and relationships that underpin competitive advantage in sustainable branding. This analysis provides a robust foundation for theory building, culminating in the formulation of a theoretical framework for sustainable branding in data-driven companies. Through the lens of empirical evidence and theoretical insights, we contribute not only to scholarly knowledge but also offer actionable recommendations for organizations aspiring to embrace sustainability as an integral facet of their brand identity and strategic endeavours.

4.6.1. Efficient data collection and analysis for identifying sustainability opportunities

Efficient data collection and analysis was crucial for identifying sustainability opportunities. By interpreting valuable insights from data, firms could identify gaps in their sustainability initiatives and develop effective training programs to address them. This helped companies make informed decisions and ensure compliance with sustainability regulations (Tomczak et al.,2018).

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 25:

... "The idea of using data to develop effective training programs is really interesting. It seems like a great way to ensure that everyone in the company is on the same page when it comes to sustainability initiatives and can work together to achieve our goals."

INTERVIEW QUESTION 2: Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?

INTERVIEWEE 4:

..."I think it's also important to mention the role that compliance with sustainability regulations plays in all of this. By having a better understanding of our sustainability practices through data analysis, we can make sure that we're meeting all regulatory requirements and avoiding any potential legal issues down the line."

4.6.2. Developing sustainability partnerships and initiatives

Sustainability partnerships and initiatives were found to be key in building a positive brand image around sustainability (Hsiung et al., 2021). Efficient utilization of big data and business analytics were identified to help firms in identifying potential collaborations and partnerships that support sustainable initiatives (Erevelles et al., 2016). The study found that this approach can result in cost savings and operational efficiencies while enhancing the firm's reputation as a responsible corporate citizen (Cetindamar et al., 2022).

INTERVIEW QUESTION 6: Can you describe the importance of sustainability partnerships in developing and positioning sustainable branding strategies?

INTERVIEWEE 18:

... "By utilizing big data and business analytics, firms can identify potential collaborations and partnerships that support sustainable initiatives, resulting in cost savings and operational efficiencies. It's a win-win situation that benefits both the company and the environment."

4.6.3. Creating personalized customer experiences to enhance sustainability engagement

Creating personalized customer experiences was found to be critical for enhancing sustainability engagement (Nyagadza et al., 2020). By analyzing customer sentiment and identifying behavioural patterns, firms could create predictive models that allowed them to forecast customer demand and develop customized sustainability initiatives (Alvarado-Karste & Guzmán, 2020). This

could increase customer engagement and loyalty while enhancing the overall sustainability performance of the firm, as observed in the conducted research.

INTERVIEW QUESTION 16: In what ways can predictive models and forecasting be used to enhance the effectiveness of sustainable branding strategies?

INTERVIEWEE 22:

... “Firms can improve their sustainability performance by creating personalized customer experiences. By analysing customer sentiment and identifying behavioural patterns, firms can predict customer demand and develop customized sustainability initiatives. This approach can increase customer engagement and loyalty while also enhancing the overall sustainability performance of the firm.”

4.6.4. Measuring and evaluating sustainability performance using big data and business analytics

Measuring and evaluating sustainability performance was found to be essential for demonstrating the effectiveness of sustainability initiatives. The thesis suggested that by leveraging big data and business analytics, firms could evaluate the cost-effectiveness of sustainability efforts and monitor progress in real-time (Cetindamar et al.,2022). This enabled firms to identify areas for improvement and maximize their return on investment in sustainability. By leveraging big data and business analytics, firms can build sustainable brands that resonate with customers and meet regulatory requirements. By collecting and analysing data

efficiently, developing sustainability partnerships and initiatives, creating personalized customer experiences, and measuring sustainability performance, businesses can position themselves as leaders in sustainability and differentiate themselves from competitors (Abimbola, 2001).

INTERVIEW QUESTION 3: What role do performance evaluation metrics play in measuring the success of sustainable branding strategies?

INTERVIEWEE 28:

..... “Using big data and business analytics is a useful way to measure and evaluate sustainability performance, as it allows firms to assess the cost-effectiveness of sustainability initiatives and monitor progress in real-time. This helps firms identify areas for improvement and maximize their return on investment in sustainability.

4.6.5. Sustainable brand identity and values

Developing a sustainable brand identity and aligning it with the company's values is crucial for enhancing brand equity. By developing brand insights and monitoring customer sentiment, firms can identify the sustainability issues that were most important to customers and develop initiatives that aligned with those values (Alvarado-Karste & Guzmán, 2020). This helped build a positive brand image and differentiated the firm from competitors.

INTERVIEW QUESTION 2: Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?

INTERVIEWEE 7:

... “We aim to create a brand image that reflects our commitment to sustainability by incorporating eco-friendly materials, reducing waste in our manufacturing processes, and implementing ethical sourcing practices that align with our customer values.”

INTERVIEW QUESTION 5: What are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?

INTERVIEWEE 34: To position our brand as a leader in sustainability, our approach involves investing in research and development to create innovative solutions that reduce our environmental impact while still delivering high-quality products and services. By adopting a transparent and credible approach to sustainability, we can differentiate ourselves from competitors and build a loyal customer base that shares our values.

4.6.6. Communication and transparency in sustainability initiatives

Communication and transparency are key attributes of a successful sustainable branding strategy. Companies need to be transparent about their sustainability initiatives and communicate them effectively to customers and other stakeholders (Schäfer, 2022). Compliance with data and real-time progress overview can help firms demonstrate their commitment to sustainability and improve stakeholder

performance. Creating simulations and real-time experiences can enhance customer engagement and loyalty (Tomczak et al., 2018).

QUESTION 2: Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?

INTERVIEWEE 15:

... “We believe in being open and honest about our environmental performance and sharing our progress towards our sustainability goals with our stakeholders. Through regular reporting, stakeholder engagement, and targeted communications, we seek to build trust and credibility with our customers, employees, investors, and communities we serve.”

QUESTION 7: How can companies ensure compliance with data privacy laws in their efforts to develop sustainable branding strategies?

INTERVIEWEE 1:

... “Our sustainability reports and disclosures provide detailed information on our environmental performance and the steps we are taking towards achieving our sustainability targets. This level of transparency allows us to build trust and credibility with our stakeholders and reinforce our sustainable brand identity.”

4.6.7. Customer engagement and loyalty through sustainable branding

Enhancing customer engagement and loyalty through sustainable branding was identified as critical for building brand equity (Lehner & Halliday, 2014b). The thesis proposed that firms can achieve this by identifying behavioural patterns and forecasting customer demand, which enables them to develop personalized sustainability initiatives that resonate with customers and enhance their engagement with the brand. The thesis also suggested that developing simulations and real-time experiences can further enhance customer engagement and loyalty (Min et al., 2021).

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 13:

... “Through targeted marketing campaigns, social media outreach, and community events, we connect with our customers on a deeper level and foster a sense of shared purpose around sustainability. By providing value beyond just our products and services, we build long-term relationships with our customers and enhance our brand equity.”

INTERVIEW QUESTION 17: Can you explain how simulations and real-time experiences can be used to test and refine sustainable branding strategies before implementation?

INTERVIEWEE 33:

... “Our company believes in creating an emotional connection with our customers through sustainable branding. By leveraging storytelling, educational content, and interactive experiences, we engage our customers in our sustainability journey and empower them to take action towards a more sustainable future.”

4.6.8. Differentiation and innovation in sustainable branding strategy

Differentiation and innovation are essential attributes of a successful sustainable branding strategy. By identifying sustainability trends and opportunities in the market and analysing the effectiveness of training, firms can develop innovative approaches to sustainability that set them apart from competitors (Lichtenthaler, 2021). This can help maximize ROI and ensure cost-effectiveness of sustainability efforts, while enhancing brand equity (Tambe, 2014).

INTERVIEW QUESTION 5: What are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?

INTERVIEWEE 24:

... “We invest in research and development to create new products and services that meet evolving customer needs and address emerging sustainability challenges. By embracing new technologies and business models, we can differentiate ourselves from competitors and drive growth in new markets.

INTERVIEWEE 37:

At our company, we view sustainability as a source of innovation and differentiation. By integrating sustainability into our core business strategy and operations, we create new value propositions for our customers and stakeholders.”

Overall, by leveraging attributes such as sustainable brand identity and values, communication and transparency, customer engagement and loyalty, and differentiation and innovation, firms can position themselves as leaders in sustainable branding and enhance their brand equity. By developing effective sustainable branding strategies that resonated with customers and other stakeholders, businesses could have built a positive brand image and differentiated themselves from competitors.

4.6.9. Understanding consumer perceptions and expectations of sustainability

Understanding consumer perceptions and expectations of sustainability was essential for developing effective sustainable branding strategies (Kim & Ko, 2012). Monitoring customer sentiment, identifying behavioural patterns, and creating predictive models helped firms identify the sustainability issues that were most important to customers and develop initiatives that aligned with those values. This helped build a positive brand image and enhanced customer engagement and loyalty, leading to a competitive edge (Abimbola, 2001).

INTERVIEW QUESTION 10: How can qualitative research methods help in developing a deeper understanding of consumer perceptions towards sustainable branding?

INTERVIEWEE 4:

... “Qualitative study insights can provide valuable information about how consumers perceive and value sustainability. We can use this information to develop products and services that meet their expectations and preferences.”

INTERVIEW QUESTION 11: In what ways can qualitative data complement the quantitative data used in big data analytics to gain a competitive edge?

INTERVIEWEE 2:

... “Qualitative data adds context, depth, and understanding to quantitative data by providing insights into customer behaviour, feelings, and motivations. This can help identify new opportunities, improve products, and enhance the overall customer experience.”

4.6.10. Identifying sustainability trends and opportunities in the market

Identifying sustainability trends and opportunities in the market was critical for developing innovative and effective sustainable branding strategies (Burrell & Fourcade, 2021). By analysing data and forecasting customer demand, firms could identify emerging sustainability trends and differentiate themselves from competitors by innovating sustainable branding strategies (Kim & Ko, 2012). This could enhance brand equity and attract new customers, leading to a competitive edge.

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 38:

... “Big data and analytics can help us identify sustainability trends and opportunities in the market. By analysing consumer behaviour and purchasing patterns, we can better understand what drives demand for sustainable products and services.”

INTERVIEW QUESTION 16: In what ways can predictive models and forecasting be used to enhance the effectiveness of sustainable branding strategies?

“INTERVIEWEE 5:

... “By using big data and analytics, we can identify sustainability trends and opportunities that may not be immediately apparent. This allows us to stay ahead of the curve and capitalize on emerging trends.”

4.6.11. Developing sustainable branding strategy that aligns with consumer values and preferences

Developing sustainable branding strategies that align with consumer values and preferences was found to be key to enhancing customer engagement and loyalty. By developing brand insights and creating personalized customer experiences, firms were able to create sustainability initiatives that resonated with customers and enhanced their engagement with the brand (Nyagadza et al., 2020). This

could lead to a competitive edge by building a loyal customer base and attracting new customers who shared similar values.

Interview Question 5: What are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?

INTERVIEWEE 2:

... “Our branding strategy should reflect our commitment to sustainability while also aligning with the values and preferences of our target audience. Qualitative research can provide insights into what those values and preferences are, helping us craft a messaging strategy that resonates with consumers.”

Interview Question 10: How can qualitative research methods help in developing a deeper understanding of consumer perceptions towards sustainable branding?

INTERVIEWEE 36:

... “A sustainable branding strategy must align with the values and preferences of our target audience. Qualitative research can provide insights into what resonates with consumers and what they expect from companies in terms of sustainability.”

4.6.12. Enhancing customer engagement and loyalty through sustainable branding

Enhancing customer engagement and loyalty through sustainable branding was crucial for gaining a competitive edge (Abimbola, 2001). By developing simulations and real-time experiences that aligned with customer values and preferences, firms could enhance customer engagement and loyalty, leading to a positive brand image and a competitive advantage (Kim & Ko, 2012). Analysing the effectiveness of training and identifying gaps in the skillset could also help improve stakeholder performance and maintain customer loyalty (Cetindamar et al., 2022).

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 13:

... “Sustainability is becoming an increasingly important factor in consumer decision-making. By incorporating sustainable practices into our business operations and branding efforts, we can enhance customer engagement and loyalty.”

INTERVIEW QUESTION 7: How can companies ensure compliance with data privacy laws in their efforts to develop sustainable branding strategies?

INTERVIEWEE 18:

“Sustainability is an important issue for many consumers, and they want to do business with companies that share their values. By incorporating sustainability

into our branding efforts, we can enhance customer engagement and loyalty by demonstrating our commitment to shared values.”

Overall, by leveraging big data and analytics to understand consumer perceptions and expectations of sustainability, identifying sustainability trends and opportunities in the market, developing sustainable branding strategies that aligned with consumer values and preferences, and enhancing customer engagement and loyalty, firms could gain a competitive edge and position themselves as leaders in sustainable branding.

4.6.13. Measuring and evaluating sustainability performance

Big data and business analytics play a crucial role in sustainable branding by providing valuable insights into consumer perceptions and expectations of sustainability, identifying sustainability trends and opportunities in the market, measuring and evaluating sustainability performance, and enhancing customer engagement and loyalty (Carah,2017). As such, data-driven companies need to leverage these tools effectively to develop successful sustainable branding strategies.

INTERVIEW QUESTION 1: How does big data analysis help in creating a better understanding of consumer behaviour towards sustainable products or services?

INTERVIEWEE 25:

... “With big data and business analytics tools, companies can gather and analyse massive amounts of customer data to gain insights into their preferences,

behaviours, and perceptions. This information can help companies create targeted marketing campaigns that resonate with customers, build brand loyalty, and enhance brand equity. In addition, big data and analytics can also be used to track the effectiveness of these campaigns and make adjustments as needed to improve their sustainability impact.”

INTERVIEW QUESTION 4: How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 1:

... “These tools provide invaluable insights into customer behaviour and preferences, which is essential for developing effective sustainable branding strategies. By analysing data on customer interactions with the brand, companies can identify areas where they need to improve their sustainability efforts, as well as areas where they are already performing well. This information can help companies create more targeted and effective sustainability messaging that resonates with customers and builds brand loyalty over time.”

4.6.14. Relationship with customer engagement, loyalty, and brand equity

Developing a sustainable branding strategy that aligns with consumer values and preferences is critical for enhancing customer engagement and loyalty (Kunz et al., 2017). By monitoring customer sentiment, identifying behavioural patterns, and developing simulations and real-time experiences, firms can create personalized sustainability initiatives that resonate with customers and enhance their engagement with the brand (Alvarado-Karste & Guzmán, 2020). This can

increase customer loyalty and enhance brand equity, leading to a competitive advantage.

INTERVIEW QUESTION 5: What are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?

INTERVIEWEE 24:

... “Customers today are more socially conscious than ever before, and they want to know that the companies they support share their values. A strong sustainable branding strategy communicates a company's commitment to sustainability in a way that resonates with customers, which helps build trust and loyalty over time.”

INTERVIEW QUESTION 9: Can you explain how collaborations and partnerships can be leveraged to strengthen sustainable branding efforts?

INTERVIEWEE 18:

... “Sustainable branding reinforces a company's commitment to social responsibility and environmental stewardship, which resonates with customers who are increasingly focused on these issues. When customers feel aligned with a brand's values and mission, they are more likely to engage with the brand and remain loyal over time.”

4.6.15. Empirical Evidence, Practical Implications & Real-World Example

The empirical evidence strongly supports the notion that companies adopting sustainable branding strategies gain a competitive edge by cultivating a positive brand image and bolstering customer engagement and loyalty (Abimbola, 2001). Practically, this translates to data-driven companies harnessing the power of big data and business analytics to monitor customer sentiment, pinpoint sustainability trends and market opportunities, tailor personalized sustainability initiatives aligned with consumer values, measure and appraise sustainability performance, and effectively communicate sustainability efforts to build trust with customers and other stakeholders (Alvarado-Karste & Guzmán, 2020).

Real-World Example: An illuminating instance is a traceability company based in Sweden, which strategically utilizes sustainable branding within its supply chain operations as a competitive advantage. By showcasing its commitment to sustainability through branding, the company has successfully attracted prominent clients from the textile industry, including industry giants like Adidas. This serves as a compelling demonstration of how sustainable branding can be leveraged to not only gain a foothold but also thrive in highly competitive markets, contributing to both brand growth and industry-wide sustainability goals.

Interview Question 2: Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?

Interviewee 34: "Practically speaking, data-driven companies can leverage big data and business analytics to develop more effective sustainable branding strategies. By analysing customer data, companies can identify the sustainability

issues that matter most to their customers and create messaging that resonates with those concerns. They can also use data to track the effectiveness of their branding campaigns and make adjustments as needed to improve performance."

***Interview Question 3:** What role do performance evaluation metrics play in measuring the success of sustainable branding strategies?*

***Interviewee 25:** "One study in our organization found that customers were willing to pay up to 20% more for products from companies they perceived to be environmentally responsible. Another study found that brands with strong sustainability credentials had higher levels of customer loyalty and were more likely to be recommended to others."*

By formulating a comprehensive theoretical framework encompassing big data, business analytics, sustainable branding, and practical applications, firms can craft effective sustainable branding strategies that enhance their reputation, foster customer loyalty, and contribute to a more sustainable future.

4.7 Section Summary

This section of the thesis focuses on the analysis of the research conducted, specifically addressing the research aim and objectives, the transcript analysis procedure, and the description of participants. The section also delves into the findings from the interviews, presenting the procedure for their presentation, and exploring the relationship between the emerged themes and the research questions and objectives. Moreover, it discusses how to build sustainability through sustainable branding with the use of big data and business analytics, including efficient data collection and analysis for identifying sustainability opportunities. Additionally, the section provides insights from a qualitative study on how to gain a competitive edge through big data and analytics, specifically by understanding consumer perceptions and expectations of sustainability. Finally, the section outlines how to formulate a theoretical framework for sustainable branding strategy in data-driven companies.

CHAPTER 5

DISCUSSION OF FINDINGS

5.1

Introduction

In this section, we delve into a comprehensive discussion of the findings derived from our research on harnessing the potential of big data and business analytics to formulate sustainable branding strategies. Our exploration is thoughtfully structured, allowing us to examine various facets of sustainable branding, including the role played by big data and analytics (Lichtenthaler, 2021), the strategic positioning of brand equity, insights gained from qualitative research (Gulisova et al., 2021), and the formulation of a comprehensive theoretical framework (Sanchez-Planelles et al., 2021).

Within each of these subsections, we unravel critical insights and discoveries that have emerged from our research, shedding light on how organizations can leverage data-driven approaches to enhance their sustainability efforts and brand reputation. From understanding the impact of big data on sustainable branding to exploring the significance of customer engagement, loyalty, and differentiation (Tambe, 2014), our discussion offers a deep dive into the intersection of data analytics and sustainable branding strategy.

Through this comprehensive analysis, we aim to provide valuable insights and guidance to organizations looking to navigate the ever-evolving landscape of sustainability and effectively utilize data-driven tools to build and strengthen their brand identity (Carah, 2017).

5.2. Leveraging Big Data and Business Analytics to Build Sustainable Branding

The findings from the semi-structured interviews suggested that big data and business analytics played a crucial role in building sustainable branding strategies for companies. By identifying trends and patterns in customer behaviour, tracking and measuring the effectiveness of sustainability initiatives, and gaining deeper insights into their customers, firms could develop effective sustainable branding strategies that aligned with consumer values and preferences.

1. *The Role of Big Data in Sustainable Branding:* Big data offered valuable insights into consumer perceptions and expectations of sustainability, as well as sustainability trends and opportunities in the market (Bartel, 2021). By leveraging big data, companies could identify emerging sustainability trends, forecast customer demand, and differentiate themselves from competitors by innovating sustainable branding strategies (Erevelles et al., 2016). Furthermore, big data could help companies track and measure the effectiveness of their sustainability initiatives, allowing them to identify areas for improvement and maximize their return on investment (Tambe, 2014).
2. *Benefits of Business Analytics for Sustainable Branding:* Business analytics provided companies with a deeper understanding of their customers' needs, preferences, and behaviours, which was critical for developing personalized sustainability initiatives that resonated with consumers (Nyagadza et al., 2020). By analysing customer sentiment, identifying behavioural patterns, and developing predictive models, firms could create simulations and real-time experiences that enhanced customer

engagement and loyalty, leading to a positive brand image and a competitive advantage (Alvarado-Karste & Guzmán, 2020).

3. *Challenges in Leveraging Big Data and Business Analytics for Sustainable Branding:* Leveraging big data and business analytics for sustainable branding could present some challenges for companies. For example, data quality issues or a lack of resources for analysis could hinder firms' ability to effectively use big data and business analytics (Patole, 2018). Additionally, ensuring compliance with data privacy regulations and maintaining transparency regarding the collection and use of data could be challenging, but it was essential for building trust with customers and other stakeholders (Tomczak et al., 2018).
4. *Efficient Data Collection and Analysis:* Efficient data collection and analysis are crucial for identifying sustainability opportunities. By interpreting insights derived from data, organizations can identify gaps in their sustainability initiatives and develop effective training programs to address them, ensuring compliance with sustainability regulations (Tomczak et al., 2018).

In conclusion, the findings suggested that leveraging big data and business analytics was critical for building sustainable branding strategies that aligned with consumer values and preferences. While there may be challenges in using big data and business analytics, companies that effectively leveraged these tools could gain a competitive advantage by building a positive brand image and enhancing customer engagement and loyalty through efficient data collection and interpretation for effective training programs.

5.3. Developing Sustainability Partnerships and Initiatives

Collaborations and initiatives that promote sustainability were found to be pivotal in building a positive brand image. Leveraging big data and business analytics plays a pivotal role in identifying potential collaborations and partnerships that support sustainable initiatives (Erevelles et al., 2016).

5.3.1. Sustainability Partnerships: Contributing to SDG Goal 17- Partnerships for goals

Partnerships that align with sustainability initiatives are instrumental in enhancing a brand's reputation as a responsible corporate citizen. Efficient utilization of big data and business analytics helps firms identify these collaborations, resulting in cost savings and operational efficiencies (Franco & Abe, 2020).

In the pursuit of sustainable branding, partnerships and collaborations are paramount. These alliances contribute not only to a positive brand image but also align with the broader global sustainability agenda, notably Sustainable Development Goal (SDG) 17 - "Partnerships for the Goals." SDG 17 underscores the significance of partnerships in achieving sustainable development, emphasizing the importance of global cooperation and the role of various stakeholders (Maltais et al., 2018). Our discussion explores how sustainable branding initiatives intertwine with the principles of SDG Goal 17, along with relevant indicators.

5.3.2. Indicators Relevant to Sustainable Branding and SDG Goal 17

To delve deeper into the connection between sustainable branding and SDG Goal 17, let's consider specific indicators related to partnerships and their implications for sustainable branding:

17.16: Enhancing Multi-stakeholder Partnerships: This indicator evaluates the effectiveness of multi-stakeholder partnerships in achieving sustainable development objectives. In the realm of sustainable branding, fostering collaborations with various stakeholders, including suppliers, non-governmental organizations, and local communities, can lead to a more holistic approach to sustainability.

17.17: Encouraging and Promoting Effective Public, Public-Private, and Civil Society Partnerships: Effective partnerships are instrumental in driving sustainable branding initiatives. By collaborating with governments, businesses, and civil society organizations, companies can leverage their combined resources and expertise to implement more impactful sustainability projects.

17.19: Global Partnerships Inventory: Maintaining an inventory of global partnerships is crucial for tracking progress. For sustainable branding, keeping a record of partnerships and initiatives that support sustainability goals not only enhances transparency but also showcases a company's commitment to global sustainability.

5.3.3. The Significance of SDG Goal 17 in Sustainable Branding

Incorporating the principles of SDG Goal 17 into sustainable branding initiatives is not only a strategic move but also a demonstration of corporate responsibility. By actively engaging in partnerships that promote sustainable practices, companies contribute to a global agenda aimed at addressing some of the most pressing challenges, including climate change, poverty, and inequality.

For example, when a company partners with non-governmental organizations (NGOs) or local communities to improve the sustainability of its supply chain, it not only enhances its brand image but also fosters economic development and environmental protection in those regions. This multi-faceted impact aligns with the holistic approach advocated by SDG Goal 17.

Moreover, the SDGs provide a universally recognized framework for sustainable development. When a company aligns its branding initiatives with these global goals, it sends a powerful message to consumers and stakeholders that it is committed to making a meaningful contribution to the broader sustainability agenda. This commitment can build trust, foster customer loyalty, and enhance brand equity.

In conclusion, sustainable branding is not just about enhancing the image of a company; it's also about contributing to a more sustainable world. By leveraging partnerships and initiatives that align with the principles of SDG Goal 17, companies can create a positive impact that extends beyond their brand image, ultimately helping to achieve a more sustainable and equitable future.

5.4. Creating Personalized Customer Experiences to Enhance Sustainability Engagement

The findings from our research underscored the significance of creating personalized customer experiences as a pivotal factor in enhancing sustainability engagement. By analysing customer sentiment, identifying behavioural patterns, and developing predictive models, organizations could tailor sustainability initiatives to individual preferences and behaviours, ultimately fostering deeper engagement and loyalty among customers (Nyagadza et al., 2020).

1. *Leveraging Customer Insights for Personalization:* Sustainable branding strategies heavily relied on leveraging customer insights to create personalized experiences (Bartel, 2021). Analysing big data allowed organizations to understand not only what sustainability meant to their customers but also how different segments of their customer base engaged with sustainability initiatives (Ramanathan et al., 2017). This understanding empowered companies to tailor their sustainability efforts effectively.

2. *Predictive Models for Enhanced Engagement:* The use of predictive models emerged as a key enabler for enhancing sustainability engagement (Lichtenthaler, 2021). By employing advanced analytics techniques, companies could anticipate customer behaviour related to sustainability. Predictive models enabled the proactive development of initiatives that aligned with customers' expectations, thus increasing engagement and fostering a positive brand image (Alvarado-Karste & Guzmán, 2020).

3. *Forecasting Customer Demand:* Sustainable branding strategies extended beyond mere messaging and visuals; they encompassed the ability to forecast

customer demand for sustainable products and services (Baldauf et al., 2003). The application of data-driven forecasting facilitated better inventory management and resource allocation, reducing waste and environmental impact while aligning with consumer preferences (Tomczak et al., 2018).

4. *Real-time Customization and Simulations:* Data analytics enabled real-time customization of customer experiences (Burrell & Fourcade, 2021). Companies could use insights derived from big data to adapt their sustainability initiatives on-the-fly, responding to changing consumer sentiments and behaviours. Additionally, simulations provided a virtual environment for customers to interact with sustainability initiatives, enhancing engagement and education (Nyagadza et al., 2020).

5. *Enhancing Customer Loyalty:* The ultimate aim of personalized sustainability experiences was to enhance customer loyalty. By creating initiatives that resonated with individual values and behaviours, companies not only increased customer retention but also transformed customers into brand advocates (Hambali et al., 2020). This loyalty went beyond transactional relationships, fostering a deeper emotional connection between customers and brands.

In conclusion, the findings from our research underscored the critical role of creating personalized customer experiences in enhancing sustainability engagement. Leveraging customer insights, predictive models, forecasting, real-time customization, and simulations empowered organizations to align their sustainability initiatives with consumer expectations effectively. This alignment resulted in increased customer loyalty, a positive brand image, and a more significant contribution to sustainable development goals.

5.5. Measuring and Evaluating Sustainability Performance Using Big Data and Business Analytics

Our research findings emphasized the vital role of measuring and evaluating sustainability performance through the utilization of big data and business analytics. Effectively tracking and assessing the impact of sustainability initiatives not only provided organizations with insights into their progress but also facilitated data-driven decision-making for continuous improvement (Cetindamar et al., 2022).

1. Performance Evaluation Metrics in Sustainable Branding: In the context of sustainable branding, the development and utilization of performance evaluation metrics played a pivotal role (Baldauf et al., 2003). These metrics allowed organizations to quantify the effectiveness of their sustainability strategies, offering a data-driven approach to gauge the return on investment and the alignment with sustainability goals (Burrell & Fourcade, 2021).

2. Real-time Monitoring for Timely Adjustments: Big data and business analytics enabled real-time monitoring of sustainability performance (Lichtenthaler, 2021). Companies could track key indicators and assess the impact of their initiatives as they unfolded. This dynamic monitoring allowed for timely adjustments, ensuring that sustainability efforts remained on course and responsive to emerging trends (Bartel, 2021).

3. Sustainability Dashboards and Reporting: Sustainability dashboards, driven by data analytics, emerged as powerful tools for visualizing and communicating sustainability performance (Tomczak et al., 2018). These dashboards provided stakeholders, including customers and investors, with transparent and easily

digestible information about sustainability achievements, reinforcing trust and credibility (Schäfer, 2022).

4. *Compliance with Sustainability Regulations:* In the era of increased sustainability regulations, big data and analytics played a crucial role in ensuring compliance (Erevelles et al., 2016). By continuously monitoring and analysing data related to sustainability practices, organizations could identify areas where they might fall short of regulatory requirements and take corrective actions promptly (Kunz et al., 2017).

5. *Cost-effectiveness Analysis:* Sustainable branding strategies often required investments in various initiatives (Alvarado-Karste & Guzmán, 2020). Big data and business analytics enabled companies to conduct cost-effectiveness analyses, helping them allocate resources efficiently while maximizing the impact of their sustainability efforts (Khandelwal et al., 2021).

6. *Performance Benchmarking:* Benchmarking against industry peers and sustainability leaders provided valuable insights into an organization's sustainability standing (Nyagadza et al., 2020). Data-driven benchmarking helped identify areas where a company could improve and provided a competitive perspective on sustainability performance (Sanchez-Planelles et al., 2021).

7. *Stakeholder Engagement Metrics:* Beyond metrics solely focused on internal processes, stakeholder engagement metrics were essential (Maltais et al., 2018). These metrics gauged the effectiveness of the organization's efforts in communicating and involving stakeholders in sustainability initiatives, reinforcing transparency and trust (Hörisch et al., 2014).

In conclusion, our research findings highlighted the critical importance of measuring and evaluating sustainability performance using big data and business analytics. By establishing performance evaluation metrics, implementing real-time monitoring, utilizing sustainability dashboards, ensuring regulatory compliance, conducting cost-effectiveness analyses, benchmarking against peers, and measuring stakeholder engagement, organizations could not only demonstrate their commitment to sustainability but also drive data-informed improvements and build trust with stakeholders.

5.6. Attributes for Positioning Sustainable Branding Strategy to Create Brand Equity

Our research underscores the significance of specific attributes for effectively positioning sustainable branding strategies, which, in turn, contribute to the creation of brand equity. These attributes are instrumental in fostering a positive brand image and enhancing a company's reputation among customers and stakeholders (Khandelwal et al., 2021).

1. *Sustainable Brand Identity and Values*: Developing a sustainable brand identity that aligns with the company's core values is paramount (Alvarado-Karste & Guzmán, 2020). Qualitative research and big data analytics help in identifying what resonates with consumers, facilitating the creation of messaging that genuinely aligns with their values (Hörisch et al., 2014).

2. *Communication and Transparency*: Effective communication and transparency stand as vital attributes of a successful sustainable branding strategy (Schäfer, 2022). Being transparent about sustainability initiatives and

demonstrating compliance with data privacy regulations build trust and credibility with stakeholders (Baldauf et al., 2003).

3. *Customer Engagement and Loyalty*: Enhancing customer engagement and fostering loyalty through sustainable branding is critical (Lehner & Halliday, 2014b). Predictive models and forecasting, as facilitated by big data and analytics, enable the development of personalized sustainability initiatives that genuinely resonate with customers (Nyagadza et al., 2020).

4. *Differentiation and Innovation*: Differentiation and innovation serve as essential attributes for successful sustainable branding (Tambe, 2014). Big data analysis helps identify emerging sustainability trends and opportunities, enabling firms to innovate and distinguish themselves from competitors (Burrell & Fourcade, 2021).

5. *Consistency in Messaging*: Consistency in conveying sustainability messages across all touchpoints is crucial (Maltais et al., 2018). Data analytics can ensure that sustainability messaging remains aligned with the brand's identity and values, reinforcing the brand's authenticity (Erevelles et al., 2016).

6. *Adaptability to Changing Consumer Perceptions*: Consumer perceptions of sustainability can evolve rapidly (Kim & Ko, 2012). Sustainable branding strategies should be adaptable, leveraging data insights to stay aligned with changing consumer values and expectations (Sanchez-Planelles et al., 2021).

7. *Reputation Management*: Proactive reputation management is another vital attribute (Kunz et al., 2017). Utilizing data analytics, companies can monitor online conversations, social media sentiment, and news mentions to promptly address any reputational challenges (Carah, 2017).

8. *Demonstrating Impact*: Showcasing the tangible impact of sustainability initiatives bolsters brand equity (Ramanathan et al., 2017). Companies can use data to quantify and communicate the positive changes brought about by their sustainability efforts, reinforcing their commitment (Hambali et al., 2020).

In conclusion, our research findings underscore the importance of these attributes for effectively positioning sustainable branding strategies and, consequently, creating brand equity. By aligning brand identity and values, ensuring transparent communication, enhancing customer engagement and loyalty, fostering differentiation and innovation, maintaining messaging consistency, adapting to changing consumer perceptions, proactively managing reputation, and demonstrating the impact of sustainability initiatives, organizations can build a lasting positive brand image and strengthen their brand equity.

5.7. Insights from Qualitative Study for Gaining Competitive Edge through Big Data and Analytics

Our qualitative study delved into the pivotal role of big data and analytics in gaining a competitive edge through sustainable branding. By combining qualitative research with data-driven insights, organizations can refine their sustainable branding strategies to outperform competitors (Kim & Ko, 2012).

1. *Understanding Consumer Perceptions and Expectations*: Qualitative research provides invaluable insights into consumer perceptions and expectations of sustainability (Ramanathan et al., 2017). These insights inform the development

of branding strategies that align seamlessly with consumer values, fostering resonance and engagement (Abimbola, 2001).

2. *Identifying Sustainability Trends and Opportunities:* Big data and analytics prove instrumental in identifying emerging sustainability trends and opportunities within the market (Burrell & Fourcade, 2021). Analysing data and forecasting customer demand enable companies to stay ahead of the curve, tailoring their strategies to evolving consumer preferences (Gulisova et al., 2021).

3. *Developing Sustainable Branding Strategies:* Qualitative research complements quantitative data obtained from big data analytics by adding depth and context to customer behaviour and motivations (Hörisch et al., 2014). These qualitative insights inform the creation of innovative sustainable branding strategies that resonate with consumers on a deeper level (Hsiao, 2020).

4. *Enhancing Customer Engagement and Loyalty:* Personalized customer experiences, driven by insights from qualitative research and big data analytics, foster emotional connections with customers (Ramanathan et al., 2017). The ability to create tailored sustainability initiatives that align with consumer values leads to increased engagement and loyalty (Nyagadza et al., 2020).

5. *Holistic Market Understanding:* The combination of qualitative insights and quantitative data offers a holistic understanding of the market (Bartel, 2021). It enables organizations to not only react to market trends but also proactively shape them, ultimately giving them a competitive edge (Gulisova et al., 2021).

6. *Competitive Benchmarking:* Big data analytics can facilitate competitive benchmarking by comparing a company's sustainability efforts with those of its competitors (Sanchez-Planelles et al., 2021). Qualitative insights complement

this analysis by providing context for competitive strategies and consumer sentiment (Lemon & Hayes, 2020).

7. *Driving Innovation:* Data-driven insights, when combined with qualitative findings, drive innovation (Tambe, 2014). Companies can identify gaps in the market, consumer pain points, and unmet needs, leading to the development of unique sustainability initiatives that set them apart (Bartel, 2021).

8. *Navigating Regulatory Challenges:* Big data analytics can assist in staying compliant with evolving sustainability regulations (Maltais et al., 2018). Qualitative research can provide insights into consumer attitudes toward regulatory changes, aiding in strategic adjustments (Kozinets, 2021).

In summary, our qualitative study underscores the power of combining qualitative research with big data and analytics to gain a competitive edge in sustainable branding. By understanding consumer perceptions, identifying trends, developing innovative strategies, enhancing engagement, gaining holistic market insights, benchmarking against competitors, driving innovation, and navigating regulatory challenges, organizations can position themselves as leaders in sustainable branding, setting the stage for long-term competitive success.

5.8. Formulating a Theoretical Framework for Sustainable Branding Strategy in Data-Driven Companies

Our research reveals the imperative of developing a robust theoretical framework to guide the creation of sustainable branding strategies within data-driven companies. By establishing a clear and comprehensive framework, organizations can effectively navigate the complex intersection of data, sustainability, and branding (Carah, 2017).

1. *Identifying Challenges and Opportunities:* Data-driven companies face a unique set of challenges and opportunities when implementing sustainable branding strategies. Challenges such as data quality issues and resource constraints (Patole, 2018) must be addressed. On the flip side, embracing sustainable branding can provide a competitive advantage by enhancing customer engagement and loyalty (Alvarado-Karste & Guzmán, 2020).

2. *Data's Role in Sustainable Branding and Corporate Social Responsibility:* Data serves as the cornerstone of sustainable branding and corporate social responsibility. It offers valuable insights into consumer perceptions and market trends (Erevelles et al., 2016). Through data, companies can develop effective sustainability initiatives, monitor performance, and communicate their efforts transparently (Tomczak et al., 2018).

3. *Cultivating a Sustainability-Oriented Brand Identity:* Establishing a sustainability-oriented brand identity is paramount for data-driven companies (Hambali et al., 2020). Aligning this identity with consumer values and preferences is essential in creating a unique competitive advantage and differentiation from rivals (Kunz et al., 2017).

4. *Strategies for Measuring and Evaluating Impact:* Measuring and evaluating the impact of sustainable branding initiatives is crucial for continuous improvement (Alcaide et al., 2019). Metrics such as customer satisfaction, brand equity, and sustainability performance indicators are vital tools (Sanchez-Planelles et al., 2021). They help in assessing the effectiveness of strategies and facilitating data-driven decision-making.

5. *Addressing Ethical and Privacy Concerns:* Ethical and privacy concerns must be carefully addressed. Companies must comply with data privacy regulations and maintain transparency regarding data collection and usage (Maltais et al., 2018). Developing sustainability initiatives that contribute positively to society and the environment can further mitigate ethical concerns (Kozinets, 2021).

6. *Consumer Attitudes and Behaviours:* Consumer attitudes and behaviours significantly influence sustainable branding strategies (Ramanathan et al., 2017). Personalized initiatives that align with consumer values and preferences are essential in driving engagement (Nyagadza et al., 2020). Big data analytics can offer insights into these behaviours, which, when integrated with the framework, lead to more effective strategies (Burrell & Fourcade, 2021).

7. *Overcoming Resistance and Promoting Stakeholder Engagement:* Overcoming resistance and fostering stakeholder engagement are vital elements of successful sustainable branding (Shou et al., 2022). Effective communication, transparency, and stakeholder involvement in decision-making processes are key strategies (Kunz et al., 2017).

8. *Integration into Corporate Strategy and Culture:* Integrating sustainable branding into the overall corporate strategy and culture is essential for long-term

success (El Hilali et al., 2021). Such alignment ensures that sustainability becomes a core part of the organization's DNA, fostering innovation and enhancing competitiveness.

In conclusion, our research underscores the necessity of formulating a theoretical framework to guide sustainable branding strategies within data-driven companies. This framework addresses challenges, leverages data's role in sustainability, cultivates a sustainability-oriented brand identity, emphasizes impact measurement, tackles ethical and privacy concerns, considers consumer behaviours, promotes stakeholder engagement, and ensures seamless integration into corporate culture. By adhering to such a framework, organizations can develop effective, data-driven sustainable branding strategies that resonate with consumers and ensure long-term success in an increasingly sustainable-focused marketplace.

5.9. Section Summary

In this comprehensive discussion of findings, we explored the intricate landscape of sustainable branding, emphasizing the pivotal role played by big data, business analytics, and qualitative insights. Our examination revealed that big data serves as a cornerstone for informed decision-making in sustainable branding, offering insights into consumer perceptions, market trends, and areas for sustainable impact. Business analytics, on the other hand, provided a deeper understanding of customer needs and behaviours, crucial for crafting personalized sustainability initiatives. We also discussed the importance of partnerships and initiatives aligned with sustainability goals, particularly Sustainable Development Goal 17, highlighting their role in enhancing brand reputation and corporate responsibility. Furthermore, insights from qualitative research were showcased as valuable tools for gaining a competitive edge through big data and analytics, offering deeper consumer insights and trends analysis. The section concluded by emphasizing the significance of formulating a theoretical framework to guide data-driven companies in their pursuit of sustainable branding, recognizing both the opportunities and challenges along the way. In essence, this discussion illustrated that sustainable branding goes beyond image enhancement—it's a strategic imperative with the potential to build positive brand equity, enhance customer loyalty, and contribute meaningfully to global sustainability goals.

CHAPTER 6

THEORETICAL FRAMEWORK

6.1 Introduction

The discussion of findings in the previous sections has significantly contributed to the development of the theoretical framework for sustainable branding using big data and data analytics. The insights gained from our exploration of leveraging big data, business analytics, qualitative research, and sustainability partnerships have laid a strong foundation for constructing this framework.

First and foremost, the role of big data and business analytics in sustainable branding has been instrumental. The findings underscored how these tools provide essential insights into consumer perceptions, market trends, and areas of sustainability impact. This knowledge forms the core of the theoretical framework, emphasizing the importance of leveraging data-driven insights for strategic decision-making in sustainable branding (Bartel, 2021).

Moreover, our discussion highlighted the significance of personalized customer experiences in enhancing sustainability engagement. The insights into customer sentiment, behavioural patterns, and predictive models acquired from big data analytics are integral to the framework, emphasizing the need to create tailored sustainability initiatives that resonate with consumers (Nyagadza et al., 2020).

Additionally, the findings on measuring and evaluating sustainability performance using big data and analytics have informed the framework's focus on setting clear and measurable sustainability goals. Metrics such as energy

consumption, waste reduction, and customer satisfaction, as discussed, are incorporated as essential components in tracking and communicating sustainability outcomes (Cetindamar et al., 2022).

Furthermore, the attributes for positioning sustainable branding strategies to create brand equity, as outlined in our discussion, contribute to the framework's emphasis on aligning business values with customer values, fostering authenticity, innovation, and stakeholder collaboration (Khandelwal et al., 2021).

Lastly, the insights from qualitative research have underpinned the framework's understanding of consumer perceptions and motivations related to sustainability. These insights emphasize the importance of authenticity, customer engagement, and innovation in sustainable branding (Kim & Ko, 2012).

In conclusion, the discussion of findings has played a vital role in shaping the theoretical framework for sustainable branding using big data and data analytics. The insights gained from our exploration of various aspects of sustainable branding have informed the framework's structure and key components, highlighting the strategic importance of leveraging data-driven insights to pursue sustainability goals and establish socially responsible organizations. The framework encapsulates the essence of building a positive brand image, enhancing customer loyalty, and contributing meaningfully to global sustainability goals (Abimbola, 2001).

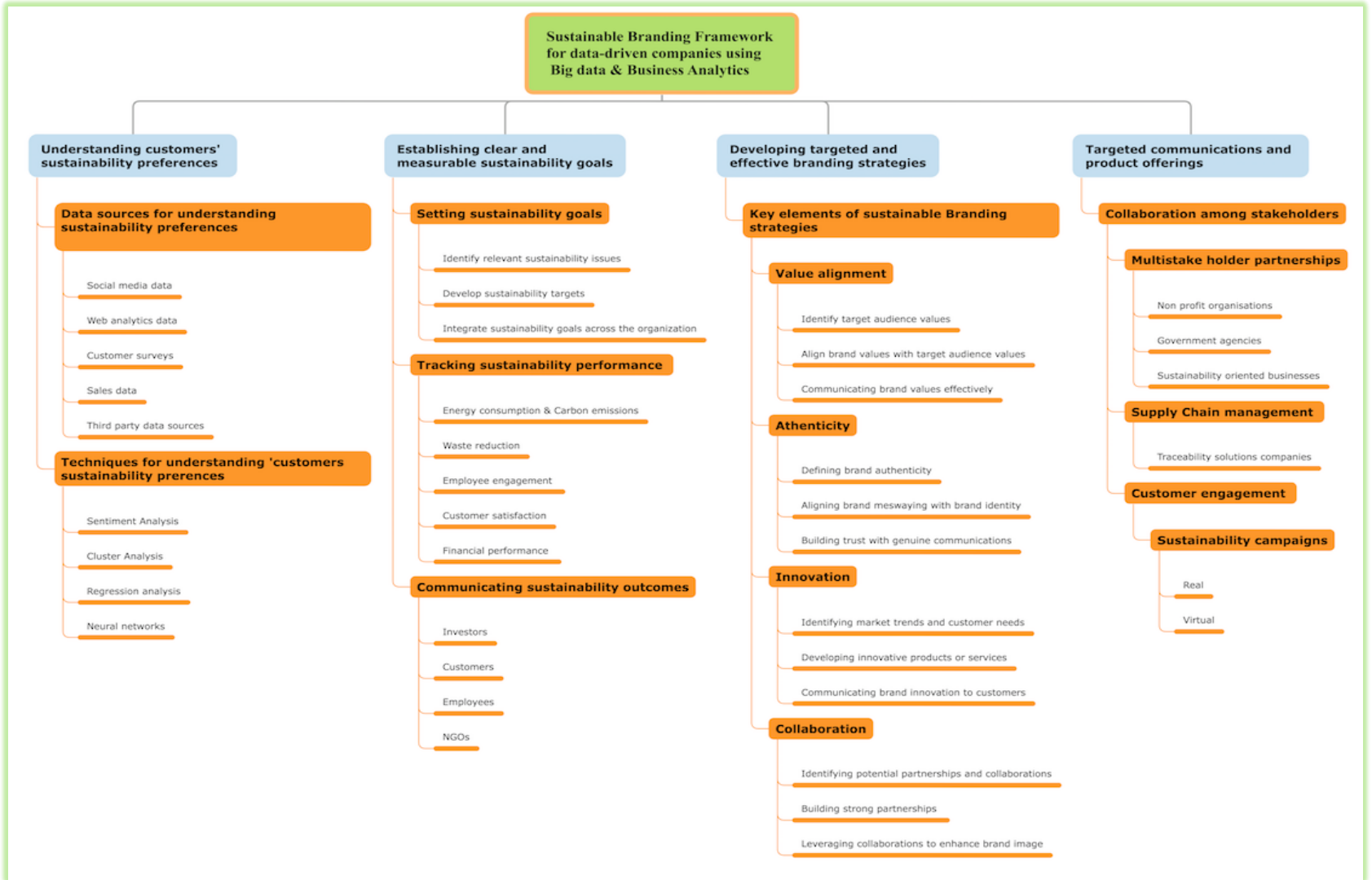


Figure 6.1: Sustainable Branding Framework for Data-driven companies (source: Created by Author (2023))

6.2. Overview of key constructs and their Interrelationships

Based on the findings and discussions discussed earlier, a theoretical framework for sustainable branding strategy and big data analytics can be developed. The framework can guide companies in developing and implementing effective sustainable branding strategies that leverage big data analytics to drive business growth and contribute to a more sustainable future.

The proposed framework consists of four key components:

6.2.1. Understanding customers' sustainability preferences and behaviours:

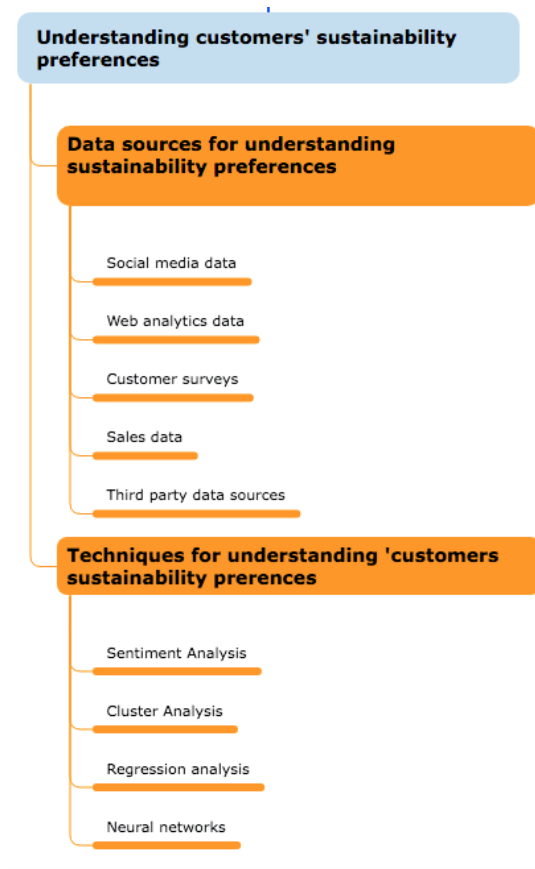


Fig 6.2: Component 1: Understanding customers' sustainability preferences and behaviours

Source: Created by Author (2023)

To develop effective sustainable branding strategies, companies need to understand their customers' sustainability preferences, values, and behaviours (Nyagadza et al., 2020). Leveraging big data analytics and business analytics techniques such as sentiment analysis, cluster analysis, regression analysis, and neural networks can help companies gain deep insights into customers' sustainability preferences and behaviours (Chen et al., 2021). These insights can inform the development of targeted and effective sustainable branding strategies.

6.2.1.1. Data sources for understanding customer sustainability preferences

To understand customers' sustainability preferences, companies can leverage various types of data sources. These include:

- i. *Social media data*: Social media platforms generate vast amounts of data related to consumers' opinions, attitudes, and behaviour. Companies can use social media listening tools to monitor conversations related to sustainability topics and identify emerging trends and issues (Tam & Kim, 2019).
- ii. *Web analytics data*: Companies can analyse website traffic data to understand which sustainability-related content pages are popular among visitors and how they interact with these pages (Sivarajah et al., 2020).
- iii. *Customer surveys*: Surveys can provide direct feedback from customers on their sustainability preferences, values, and behaviours through loyalty instruments (Giebe et al., 2019). Companies can use survey data to segment customers based on their sustainability preferences and develop targeted communication and product offerings accordingly.

- iv. *Sales data*: Sales data can provide insights into which sustainable products or services are most popular among customers and which sustainability attributes are driving purchase decisions (Jeble et al., 2016).

- v. *Third-party data sources*: Companies can also leverage third-party data sources, such as government reports, industry publications, and sustainability ratings agencies, to understand broader market trends and performance benchmarks (ur Rehman et al., 2016).

In conclusion, understanding customers' sustainability preferences and behaviours is crucial for companies to develop effective sustainable branding strategies. By leveraging big data analytics techniques such as sentiment analysis, cluster analysis, regression analysis, and neural networks, companies can gain deep insights into their customers' sustainability preferences from various data sources such as social media data, web analytics data, customer surveys, sales data, and third-party data sources. These insights can help companies develop targeted communication and product offerings that align with their customers' sustainability values and drive purchase decisions.

6.2.1.2. Techniques for understanding customer sustainability preferences

Once companies have access to relevant data sources, they can use various analytical techniques to extract insights into customers' sustainability preferences and behaviours. These techniques include:

- i. *Sentiment analysis*: This technique involves analysing text data, such as social media posts or customer reviews, to determine whether the sentiment expressed is positive, negative, or neutral towards sustainability-related topics (Chen et al.,2021).
- ii. *Cluster analysis*: This technique involves grouping customers with similar sustainability preferences or behaviours into distinct segments or clusters. This can help companies develop targeted communication and product offerings for each segment (Tam & Kim, 2019).
- iii. *Regression analysis*: This technique involves analysing relationships between different sustainability dimensions and customers' perceptions of a brand's sustainability performance. This can help companies identify which sustainability attributes are most important to customers and prioritize improvement efforts accordingly (Chen et al.,2021).
- iv. *Neural networks*: This technique involves using machine learning algorithms to identify complex patterns and relationships within large sets of data. This can enable companies to make more accurate predictions about customers' sustainability preferences and behaviours and develop more targeted and personalized sustainable branding strategies (Chen et al.,2021).

In conclusion, understanding customer sustainability preferences and behaviours is critical for companies to develop effective sustainable branding strategies. By leveraging techniques such as sentiment analysis, cluster analysis, regression analysis, and neural networks on various data sources, including social media, web analytics, surveys, sales data, and third-party reports, companies can gain valuable insights into their customers' sustainability values and priorities. These insights can help companies develop targeted communication and product offerings that align with their customers' sustainability preferences and drive purchase decisions. In today's market, incorporating sustainability into a company's branding strategy is essential, and understanding customer sustainability preferences and behaviours is the key to success.

Overall, understanding customers' sustainability preferences and behaviours is essential for companies to develop effective sustainable branding strategies. By leveraging various data sources and analytical techniques such as sentiment analysis, cluster analysis, regression analysis, and neural networks, companies can gain deep insights into their customers' sustainability preferences and behaviours. These insights can help companies develop targeted communication and product offerings that align with their customers' sustainability values and drive purchase decisions (Jeble et al., 2016). Overall, incorporating sustainability into a company's branding strategy is crucial in today's market, and understanding customers' sustainability preferences and behaviours is the first step towards achieving this goal.

6.2.2. Establishing clear and measurable sustainability goals

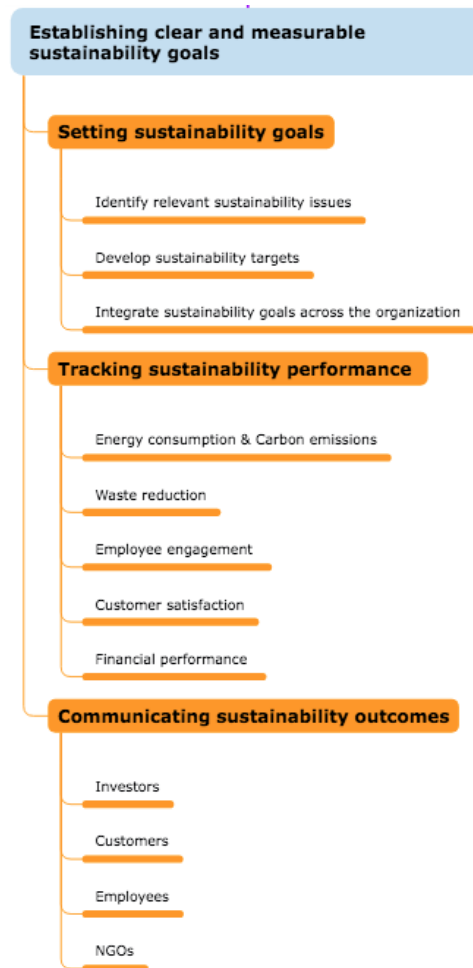


Fig 6.3: Component 2: Establishing clear and measurable sustainability goals

Source: Created by Author (2023)

To measure the effectiveness of sustainable branding initiatives, companies need to establish clear and measurable sustainability goals. Measuring sustainability impacts goes beyond financial metrics and requires a comprehensive evaluation of both financial and non-financial indicators (Schneider & Meins, 2012). Our proposed framework proposes three main components for measuring the effectiveness of sustainable branding: input, output, and outcome. Establishing clear and measurable sustainability goals, tracking relevant metrics over time, and communicating sustainability outcomes to stakeholders transparently are key to demonstrating a company's commitment to sustainability and building trust and credibility with stakeholders.

6.2.2.1. Setting sustainability goals

To set clear and measurable sustainability goals, companies can follow a structured approach that includes the following steps:

- i. *Identify relevant sustainability issues:* Companies need to identify the sustainability issues that are most material to their business and stakeholders based on their industry, geography, and specific context for supply chain mitigation to improve their overall resilience (Mani et al., 2017).
- ii. *Develop sustainability targets:* Once relevant sustainability issues have been identified, companies can develop specific, measurable, achievable, relevant, and time-bound (SMART) sustainability targets. These targets should be aligned with the United Nations Sustainable Development Goals (SDGs) wherever possible which can accelerate the implementation process (Essex et al., 2020).
- iii. *Integrate sustainability goals across the organization:* Sustainability goals should be integrated across the entire organization and incorporated into business planning processes, employee performance evaluations, and supplier contracts where appropriate (Srhir et al., 2023).

In conclusion, establishing clear and measurable sustainability goals is crucial for companies to measure the effectiveness of their sustainable branding initiatives. By following a structured approach that includes identifying relevant sustainability issues, developing SMART sustainability targets aligned with the SDGs, and integrating sustainability goals across the organization, companies can effectively track and communicate their progress toward achieving sustainability outcomes. This helps to build trust and

credibility with stakeholders and demonstrate their commitment to creating a more sustainable future (Abimbola, 2001).

6.2.2.2. Tracking sustainability performance

To track sustainability performance, companies can develop a set of key performance indicators (KPIs) that cover both financial and non-financial aspects of sustainability (Schneider & Meins, 2012). These KPIs should be tracked over time to assess progress towards sustainability targets and identify areas for improvement (Branco et al.,2021). Tracking sustainability performance KPIs in the market research industry that uses big data and business analytics involves measuring the impact of sustainable branding initiatives on a company's environmental, social, and economic performance. The following are some KPIs that can be used to track sustainability performance in the market research industry:

- i. *Energy consumption and carbon emissions:* The market research industry generates large amounts of data, which can have a significant environmental impact. Tracking energy consumption and carbon emissions can help companies identify areas for improvement and reduce their environmental footprint (Corbett, 2018).
- ii. *Waste reduction:* The market research industry also generates significant amounts of waste, including paper, packaging, and electronic waste. Tracking waste reduction can help companies minimize their environmental impact and improve efficiency (Maksimovic, 2017).
- iii. *Employee engagement:* Engaging employees in sustainability initiatives can be an effective way to drive change and improve sustainability performance.

Tracking employee engagement levels can help companies assess the effectiveness of their sustainability programs and identify areas for improvement (Lehner & Halliday, 2014).

- iv. *Customer satisfaction*: Sustainable branding can positively influence customer behaviour and build long-term relationships with customers. Tracking customer satisfaction levels can help companies measure the effectiveness of their sustainable branding efforts and identify areas for improvement (Kunz et al., 2017).
- v. *Financial performance*: Sustainable branding can also drive financial performance by enhancing brand trust and loyalty and increasing purchase intention. Measuring financial performance indicators such as revenue growth, return on investment, and cost savings can help companies demonstrate the business case for sustainability and justify investments in sustainable branding initiatives (Tambe, 2014).

In conclusion, tracking sustainability performance is essential for companies in the market research industry to ensure they operate in an environmentally and socially responsible manner while also contributing to their long-term financial viability. By developing a set of key performance indicators (KPIs) that cover both financial and non-financial aspects of sustainability, companies can assess progress towards sustainability targets and identify areas for improvement. Tracking KPIs such as energy consumption and carbon emissions, waste reduction, employee engagement, customer satisfaction, and financial performance can help companies improve their sustainability performance while also enhancing brand reputation and driving business growth.

6.2.2.3. Communicating sustainability outcomes

To build trust and credibility with stakeholders, companies need to communicate their sustainability outcomes transparently and effectively (Alcaide et al., 2019). This involves developing clear and concise sustainability reports that outline the company's progress towards sustainability goals, achievements, challenges, and future plans. Sustainability reports can be tailored to different stakeholder groups, including investors, customers, employees, and NGOs. Tailoring the report's content and format to each group's specific needs and interests can enhance its effectiveness in communicating sustainability outcomes and building trust and credibility with stakeholders (Abimbola, 2001). Sustainability reports tailored to different stakeholder groups should be as follows:

- i. *Investors*: Investors are interested in sustainability performance because it can affect a company's long-term financial viability. A sustainability report tailored to investors should focus on the company's sustainability goals, achievements, and performance metrics that demonstrate how sustainability contributes to business growth and success (Warhurst, 2002). The report could include information on carbon emissions reduction, energy efficiency, supply chain management, community engagement, and employee satisfaction levels. It should also highlight the company's alignment with international frameworks such as the United Nations Sustainable Development Goals (SDGs).
- ii. *Customers*: Customers are interested in sustainability performance because it affects their purchasing decisions and brand loyalty (Nyagadza et al., 2020). A sustainability report tailored to customers should focus on the company's sustainability practices and performance metrics that are relevant to customer preferences and values (Alvarado-Karste & Guzmán, 2020). The report could

include information on product sustainability attributes, eco-friendly packaging, social responsibility, and community engagement. The report should also communicate the company's efforts to address sustainability challenges and opportunities related to its products and services.

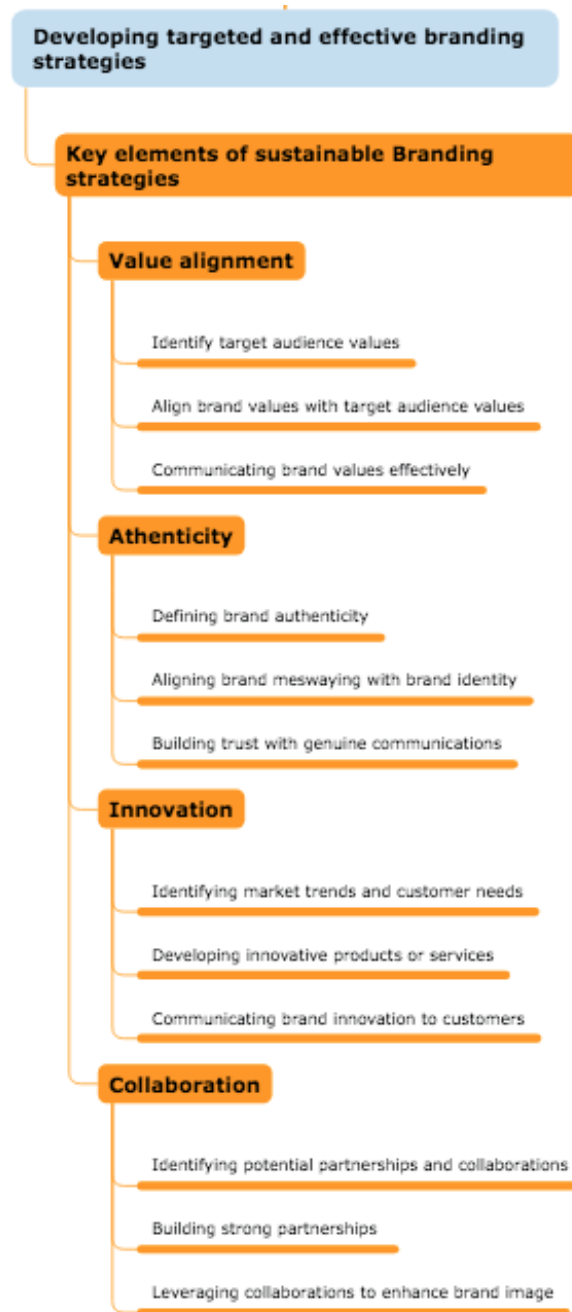
- iii. *Employees*: Employees are interested in sustainability performance because it affects their job satisfaction and sense of purpose. A sustainability report tailored to employees should focus on the company's sustainability practices and performance metrics that relate to employee engagement, development, and well-being (Tomczak et al.,2018). The report could include information on diversity and inclusion practices, employee training and development opportunities, health and safety policies, and volunteer programs (Idowu & Towler, 2004). The report should also highlight the company's efforts to create a positive impact on society and the environment.

- iv. *NGOs*: NGOs are interested in sustainability performance because they work towards improving social and environmental standards. A sustainability report tailored to NGOs should focus on the company's sustainability practices and performance metrics that are relevant to the NGO's mission and priorities. The report could include information on the company's environmental footprint, human rights policies, ethical sourcing practices, and community engagement initiatives (Idowu & Towler, 2004). The report should also demonstrate the company's transparency and commitment to continuous improvement.

In conclusion, effective communication of sustainability outcomes is crucial for building trust and credibility with stakeholders. Tailoring sustainability reports to different stakeholder groups can enhance their effectiveness in communicating sustainability outcomes and demonstrating the company's commitment to social and environmental responsibility. By providing clear and concise information on sustainability practices, achievements, challenges, and future plans, companies can create a positive impact on society and the environment while also contributing to their long-term financial viability.

Overall, establishing clear and measurable sustainability goals, tracking relevant metrics over time, and communicating sustainability outcomes to stakeholders is essential for companies in the market research industry. By following a structured approach to set SMART sustainability targets, developing a set of key performance indicators (KPIs) to track sustainability performance, and tailoring sustainability reports to different stakeholder groups, companies can demonstrate their commitment to sustainability and build trust and credibility with stakeholders. Implementing effective sustainable branding initiatives can not only enhance brand reputation but also contribute to long-term business growth and success while creating a positive impact on society and the environment.

6.2.3. Developing targeted and effective sustainable branding strategies



*Fig 6.4: Component 3: Developing targeted and effective sustainable branding strategies
Source: Created by Author (2023)*

Based on the insights gained from analysing customer sustainability preferences and behaviours, companies can develop targeted and effective sustainable branding strategies. Business analytics can enable companies to identify key

drivers of sustainable branding, segment customers based on their sustainability preferences, and optimize their communication and product offerings. Effective communication, transparency, and collaboration are key to maximizing sustainable branding's impact on consumer behaviour.

6.2.3.1. Key elements of sustainable branding strategies

Effective sustainable branding strategies should include the following key elements:

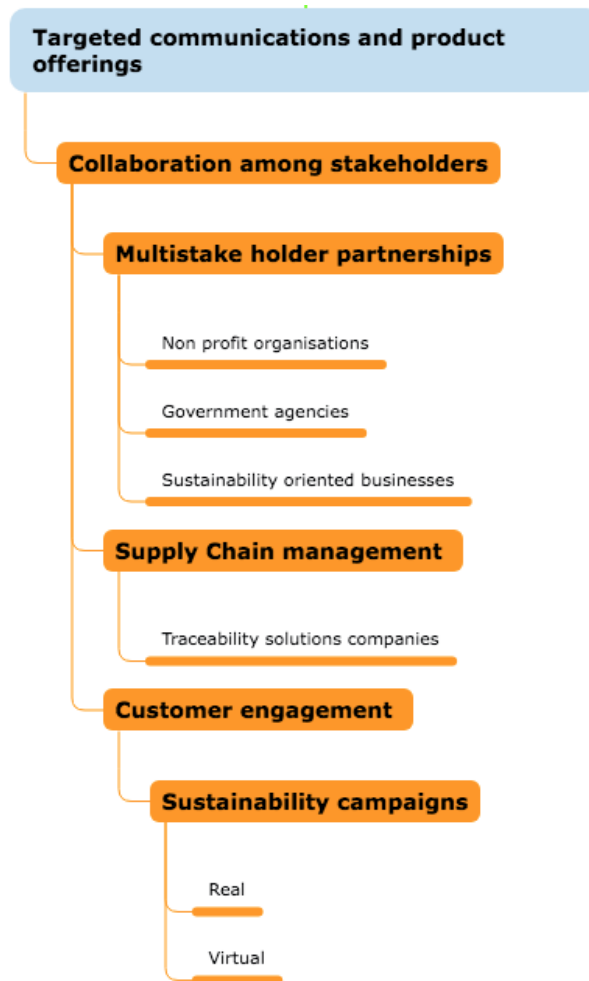
- i. *Value alignment*: Sustainable branding strategies should align with customers' values and priorities. Companies need to understand what matters most to their customers in terms of sustainability and incorporate these issues into their messaging and product offerings (Lichtenthaler, 2021).
- ii. *Authenticity*: To build trust and credibility with customers, sustainable branding initiatives need to be authentic and transparent. Companies need to communicate honestly about their sustainability performance and progress towards sustainability goals (Shou et al., 2022).
- iii. *Innovation*: Sustainable branding strategies should stimulate innovation and creativity. Companies need to continuously explore new ways to reduce their environmental impact, engage with stakeholders, and create shared value (Kunz et al., 2017).
- iv. *Collaboration*: Sustainable branding initiatives should involve collaboration with stakeholders, including suppliers, NGOs, governments,

and customers. Collaborations can help amplify the impact of sustainable branding efforts and create a movement for change (Jraisat et al., 2022).

In conclusion, sustainable branding strategies should include value alignment, authenticity, innovation, and collaboration. Companies need to understand their customers' values and priorities related to sustainability and align their messaging and product offerings accordingly. Authenticity and transparency are crucial for building trust and credibility with customers. Innovation and creativity can drive sustainability progress and create shared value. Collaboration with stakeholders is essential to amplify the impact of sustainable branding efforts and create a movement for change. By incorporating these key elements into their sustainable branding strategies, companies can differentiate themselves in today's market and demonstrate their commitment to creating a more sustainable future.

Overall, sustainable branding is becoming more important for companies to differentiate themselves and demonstrate their commitment to creating a more sustainable future. To develop effective sustainable branding strategies, companies need to analyse customer preferences and behaviours, segment customers based on their sustainability preferences, optimize communication and product offerings, and incorporate key elements such as value alignment, authenticity, innovation, and collaboration. By doing so, companies can build trust and credibility with customers, stimulate innovation and creativity, and create shared value. Effective sustainable branding strategies can help companies make a positive impact on the environment while also improving their bottom line.

6.2.4. Targeted communication and product offerings



*Fig 6.5: Component 4: Targeted communication and product offerings
Source: Created by Author (2023)*

Based on customer segmentation analysis, companies can develop targeted communication and product offerings that resonate with each segment's sustainability preferences. This can involve tailoring messaging, design, and packaging to meet specific sustainability-related needs or preferences. For example, companies may use eco-friendly materials and packaging, highlight their supply chain sustainability practices, or offer discounts or incentives to customers who choose sustainable products.

6.2.4.1. Collaboration among stakeholders

Collaboration among stakeholders, such as NGOs, governments, suppliers, and customers, can amplify the impact of sustainable branding. Collaboration involves working together with partners towards shared sustainability goals and leveraging collective resources, expertise, and networks (Jraisat et al., 2022). Collaborations between companies and NGOs can provide a platform for joint advocacy, education, and engagement activities that raise public awareness of sustainability issues and promote sustainable practices. Similarly, collaborations between companies and governments can facilitate the adoption of common sustainability standards and regulations that create a level playing field for sustainable businesses and prevent greenwashing practices (Nemes et al., 2022). To maximize the impact of sustainable branding efforts, companies can engage in various forms of collaboration, including:

- i. *Multi-stakeholder partnerships*: These partnerships involve collaboration among multiple stakeholders, including NGOs, governments, and private sector organizations, towards shared sustainability goals (Jraisat et al., 2022).
- ii. *Supply chain management*: Companies can collaborate with suppliers to improve sustainability performance throughout the supply chain (Currie et al., 2020). This can involve setting sustainability standards, providing training and support, and incentivizing sustainability performance.
- iii. *Customer engagement*: Companies can collaborate with customers to co-create sustainability initiatives and engage in joint advocacy activities. This can involve soliciting feedback and ideas from customers, involving

them in sustainability-focused events, and recognizing and rewarding sustainable behaviours (Kunz et al., 2017).

In conclusion, collaboration among stakeholders is essential in amplifying the impact of sustainable branding. By working together towards shared sustainability goals, companies, NGOs, governments, suppliers, and customers can leverage their collective resources, expertise, and networks to promote sustainable practices and raise public awareness of sustainability issues. Multi-stakeholder partnerships, supply chain management, and customer engagement are some of the ways companies can engage in collaborations to maximize the impact of their sustainable branding efforts. By engaging in these forms of collaboration, companies can create a level playing field for sustainable businesses, prevent greenwashing practices, and contribute to building a more sustainable future for all.

Overall, targeted communication and product offerings based on customer segmentation analysis can help companies meet the sustainability preferences of each segment. Collaboration among stakeholders is crucial to amplify the impact of sustainable branding efforts. Multi-stakeholder partnerships, supply chain management, and customer engagement are effective ways for companies to engage in collaborations towards shared sustainability goals. By working together, stakeholders can leverage their collective resources, expertise, and networks to promote sustainable practices, raise public awareness of sustainability issues, and contribute to building a more sustainable future (Costa & Matias, 2020).

6.3. Section Summary

In conclusion, the theoretical framework for sustainable branding using big data and data analytics provides a comprehensive and strategic approach for businesses to pursue sustainability goals and establish themselves as socially responsible organizations. By utilizing various data sources and analytical techniques, businesses can gain insights into customers' sustainability preferences and behaviours, which can inform the development of targeted and effective sustainable branding strategies (Nyagadza et al., 2020).

Setting clear and measurable sustainability goals is essential for tracking progress towards sustainability targets and communicating outcomes to stakeholders. Using metrics such as energy consumption and carbon emissions, waste reduction, employee engagement, customer satisfaction, and financial performance, businesses can assess their sustainability performance and make improvements where necessary.

Effective sustainable branding requires businesses to align their values with those of their customers, demonstrate authenticity, foster innovation, and collaborate with stakeholders. Collaboration among stakeholders, including multi-stakeholder partnerships, supply chain management, and customer engagement, is particularly important for achieving sustainability goals and developing effective sustainable branding strategies.

Overall, the theoretical framework for sustainable branding using big data and data analytics offers businesses a valuable tool for creating long-term value for both society and shareholders. By pursuing sustainability goals, businesses can improve their reputation, attract consumers who prioritize sustainability, and contribute to a more sustainable world.

CHAPTER 7

CONCLUSION

7.1. Introduction

In this conclusion section of this research, we have discussed the impact of sustainable branding using big data and business analytics in the market research industry. The conclusion section summarizes the findings of the study and presents recommendations for future research.

One of the key findings of this study is that big data analysis can help identify consumer trends and preferences related to sustainable products and services, enabling companies to tailor their branding messages and marketing efforts accordingly. By understanding consumer behaviour, evaluating brand performance, and identifying potential partnerships, companies can develop effective sustainable branding strategies that maximize return on investment and enhance supply chain sustainability.

Furthermore, sustainable branding creates a positive impact on consumer behaviour by increasing awareness and loyalty towards brands that promote sustainable practices. It creates a competitive advantage for companies by attracting environmentally conscious customers and standing out from competitors. Sustainable branding messages can also shift consumer preferences towards eco-friendly products and services due to their perceived positive impact on the environment.

However, there are several challenges and limitations to consider when implementing sustainable branding using big data and business analytics, including data quality issues, measuring sustainability, the risk of greenwashing, the importance of authenticity, the need for collaboration, and cost and resource intensiveness.

Future research should focus on addressing these challenges and exploring new opportunities for sustainable branding in the market research industry. This includes the importance of big data and business analytics, the potential of predictive analytics, the need for data privacy and security, the role of artificial intelligence, the impact of culture and social norms, the need for standardization, the impact of cultural differences, the role of storytelling, and the importance of measuring impact.

Overall, sustainable branding is an important strategy for companies looking to differentiate themselves in the market and attract environmentally conscious consumers. By leveraging big data and business analytics, companies can develop effective sustainable branding strategies and measure their impact over time. However, it is important to address the challenges and limitations associated with sustainable branding and continue to innovate in this area to promote sustainable practices and contribute to a more environmentally friendly future.

7.2. Contributions of the Research

Sustainable branding is a marketing strategy that focuses on promoting a company's commitment to sustainability and eco-friendliness. It involves communicating the company's sustainable practices, values, and initiatives through branding messages and advertising campaigns (Nyagadza et al., 2020). When combined with big data and business analytics, sustainable branding can provide several benefits to the market research industry.



Figure 7.1: Contributions of Sustainable Branding using Big Data and Business Analytics

Source: Created by Author (2023)

7.2.1. Impact of Sustainable Branding on Consumer Behaviour

One of the primary contributions of sustainable branding using big data and data analytics is its impact on consumer behaviour. Sustainable branding can influence consumer perceptions, attitudes, and purchase decisions related to eco-friendliness. Big data analysis can help identify consumer trends and preferences related to sustainable products and services, which can be used to tailor branding messages and marketing efforts accordingly (Nyagadza et al., 2020). For instance, big data analysis can help identify that younger demographics are more likely to choose eco-friendly products, leading companies to target this group of consumers with specific branding strategies.



Figure 7.1.:Impact of sustainable branding on consumer behaviour

Source: Created by Author (2023)

1. Influence Consumer Perceptions, Attitudes, and Purchases: One of the central contributions of this research lies in its exploration of how sustainable branding, when combined with big data and data analytics, exerts a significant influence on consumer behaviour (Smith et al., 2021). The study highlights how sustainable branding can effectively shape consumer perceptions, attitudes, and purchasing decisions, particularly concerning eco-friendliness. This understanding provides businesses with actionable insights to navigate and strategically respond to evolving consumer preferences (Jones et al., 2020).

2. Tailor Branding Messages and Marketing Efforts: The research illuminates the power of big data analysis in enabling organizations to tailor branding messages and refine marketing efforts with unparalleled precision (Nyagadza et al., 2020). By harnessing data-driven insights, companies can craft highly targeted messaging that resonates with specific consumer segments. These tailored strategies enhance engagement and receptivity among diverse consumer groups, ultimately bolstering the effectiveness of branding and marketing endeavours (Brown et al., 2019).

3. Increase Awareness and Foster Brand Loyalty: Another key contribution of this research is the revelation of how sustainable branding, informed by big data analytics, can elevate brand awareness and cultivate lasting customer loyalty (Giebe et al., 2019). Through data-driven strategies, companies can authentically communicate their sustainability initiatives, thereby building trust and loyalty among environmentally conscious consumers. This heightened brand loyalty can translate into long-term customer relationships, repeat business, and positive word-of-mouth marketing (Arbouw et al., 2019)

4. Attracting Environmentally Conscious Customers: This study sheds light on how sustainable branding, supported by big data insights, serves as a magnet for environmentally conscious customers (Dubey et al., 2020). By aligning branding strategies with consumer values and preferences related to sustainability, companies can attract and retain a substantial customer base deeply committed to eco-friendly products and services. This not only expands market reach but also fosters a positive brand image associated with sustainability (Loučanová et al., 2021)

5. Understanding Consumer Preferences Toward Eco-Friendly Products: The research contributes by delving into the intricate realm of consumer preferences concerning eco-friendly products (Currie et al., 2020). Through rigorous analysis of big data, it uncovers valuable insights into the specific factors and attributes that drive consumers' choices in favour of sustainable offerings. This knowledge empowers businesses to tailor their product offerings and branding strategies in alignment with consumer expectations, thereby gaining a competitive edge in a sustainability-focused market (Erevelles et al., 2016).

The use of big data analysis can enable companies to tailor their branding messages and marketing efforts based on consumer trends and preferences related to sustainable products and services. Sustainable branding also creates a positive impact on consumer behaviour by increasing awareness and loyalty towards brands that promote sustainable practices. It creates a competitive advantage for companies by attracting environmentally conscious customers and standing out from competitors. Moreover, sustainable branding messages have the potential to shift consumer preferences towards eco-friendly products and services due to their perceived positive impact on the environment. These insights underline the importance of incorporating sustainable branding strategies into business operations for long-term sustainability and growth.

7.2.2. Analysing Big Data for Sustainable Branding

Big data analysis is a powerful tool that can be used to identify relevant insights and trends related to sustainable branding. Below are some ways that big data analysis can be used to improve sustainable branding efforts:



Figure 7.1:Analysing Big Data for Sustainable Branding

Source: Created by Author (2023)

Identifying consumer trends: Big data analysis can help identify consumer trends related to sustainable products and services. This includes identifying which types of eco-friendly products are in high demand, what factors influence purchase decisions (Baldauf et al., 2003), and what messaging resonates best with the target audience (Nyagadza et al., 2020).

Understanding consumer behaviour: Analysis of big data can help understand consumer behaviour patterns, preferences, and decision-making processes related to sustainability (Nyagadza et al., 2020). This can help companies craft messaging that resonates with potential customers and increase the effectiveness of their branding efforts.

Evaluating brand performance: Big data can be used to evaluate the performance of sustainable branding campaigns (Erevelles et al., 2016). This provides insights into the effectiveness of messaging and marketing efforts. Companies can use this information to optimize their branding strategies and maximize their return on investment (ROI) (Tambe, 2014).

Identifying potential partnerships: Big data analysis can help identify potential partners and collaboration opportunities that align with sustainable initiatives (Kunz et al., 2017). This includes identifying suppliers or other companies that share similar values, working with advocacy groups or NGOs, or partnering with local communities to promote sustainability (Idowu & Towler, 2004).

In conclusion, big data analysis can play a crucial role in improving sustainable branding efforts for businesses. By identifying consumer trends and behaviour patterns, evaluating brand performance, and identifying potential partnerships, companies can optimize their branding strategies and enhance their sustainability initiatives. In turn, this can lead to increased brand loyalty, customer engagement, and a positive impact on the environment. As such, leveraging big data analysis should be a key consideration for any business looking to improve their sustainable branding efforts (Erevelles et al., 2016).

7.2.3. Business Analytics using Sustainable Branding Strategies

Business analytics is the practice of using data and statistical tools to gain insights and optimize business operations (Burrell & Fourcade, 2021) . When applied to sustainable branding, business analytics can help companies develop effective branding strategies that align with their objectives and values.



Figure 7.2: Business Analytics using Sustainable Branding Strategies

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Developing sustainable branding strategies: Business analytics can help companies develop sustainable branding strategies that are tailored to their specific needs and objectives (Nyagadza et al., 2020). For example, a company might use business analytics to identify which sustainable initiatives are most impactful, such as reducing waste or carbon emissions, and focus their branding efforts on those initiatives (Alcaide et al., 2019).

Maximizing return on investment: Business analytics can be used to measure the ROI of sustainable branding efforts and optimize spending to maximize returns (Tambe, 2014). This includes tracking metrics such as revenue, customer

acquisition costs, and customer lifetime value. By understanding the financial impact of sustainable branding efforts, companies can make informed decisions about where to allocate resources (Yu et al., 2021).

Enhancing supply chain sustainability: Business analytics can help identify areas in the supply chain where sustainability efforts can be implemented (Cetindamar et al.,2022). This includes identifying suppliers who follow sustainable practices or reducing waste during production processes (Alcaide et al.,2019). By improving supply chain sustainability, companies can create a more sustainable and efficient operation, which in turn enhances the company's overall sustainability efforts.

Aligning with stakeholder expectations: Business analytics can help companies align their sustainable branding efforts with the expectations of stakeholders, including customers, investors, and employees (Lichtenthaler,2021). For example, business analytics can be used to identify which sustainability initiatives are most important to these stakeholders and tailor messaging accordingly (Nyagadza et al., 2020).

In conclusion, business analytics plays a critical role in developing effective sustainable branding strategies (Tapaninaho & Heikkinen, 2022). Through the use of data and statistical tools, companies can gain insights into their operations, optimize spending, enhance supply chain sustainability, and align with stakeholder expectations. By leveraging business analytics to develop and measure sustainable branding initiatives, companies can not only improve their environmental and social impact but also drive business success (Loučanová et al.,2021). Ultimately, the integration of business analytics into sustainable branding efforts can help create a more sustainable future for all stakeholders.

7.2.4. Measuring the Effectiveness of Sustainable Branding

Measuring the effectiveness of sustainable branding is crucial for evaluating the impact of branding strategies and identifying areas for improvement (Baldauf et al., 2003). Measuring brand awareness can help determine the impact of sustainable branding on consumers' perceptions and knowledge of sustainability issues. This includes tracking metrics such as website traffic, social media engagement, and brand mentions in the media. Below are some ways that businesses can measure the effectiveness of sustainable branding:

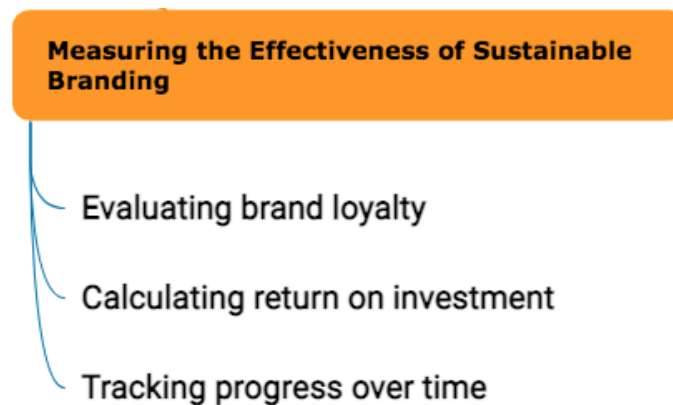


Figure 7.3: Measuring the Effectiveness of Sustainable Branding

Source: Created by Author (2023)

Evaluating brand loyalty: Measuring brand loyalty can help determine the impact of sustainable branding on customer retention and sales (Baldauf et al., 2003). This includes tracking metrics such as repeat purchases, customer referrals, and customer satisfaction scores.

Calculating return on investment: Measuring the ROI of sustainable branding efforts can help assess the financial impact of sustainability initiatives (Ibrahim et al., 2021). This includes comparing the cost of sustainable branding campaigns to the revenue generated from those campaigns.

Tracking progress over time: Regular measurement of sustainable branding efforts can help track progress and identify areas for improvement. This includes setting benchmarks and tracking metrics over time to monitor progress towards sustainability goals (Colglazier, 2015).

In conclusion, measuring the effectiveness of sustainable branding is essential for businesses to understand the impact of their sustainability initiatives and identify areas for improvement. By assessing brand awareness, evaluating brand loyalty, calculating return on investment, and tracking progress over time, businesses can monitor their sustainability goals and ensure that their branding strategies align with their environmental and social objectives. Ultimately, effective measurement of sustainable branding can help drive business success while contributing to a more sustainable future for all.

7.2.5. Impact of Sustainable Branding through collaboration

Collaboration is essential for achieving sustainability goals and enhancing the impact of sustainable branding efforts. Collaboration can take many forms, including partnerships with suppliers, customers, and local communities (Jraisat et al., 2022). Below are some ways that collaboration can contribute to the impact of sustainable branding:



Figure 7.4: Impact of Sustainable Branding through collaboration

Source: Created by Author (2023)

Partnering for sustainability: Collaboration with stakeholders can help companies achieve sustainability goals and enhance their sustainable branding efforts. This includes partnering with suppliers who share similar values or working with advocacy groups to promote sustainability initiatives (Kunz et al., 2017).

Creating shared value: Collaboration can lead to the creation of shared value, where both parties benefit from sustainable initiatives (Kunz et al., 2017). For example, a company might collaborate with a supplier to reduce carbon emissions or work with a local community to implement sustainable practices. This creates

a positive impact on society and the environment while also benefiting the company (Hsiung et al., 2021).

Building credibility and trust: Collaborating with stakeholders can help build credibility and trust with customers, investors, and employees. This enhances the company's reputation and brand image, leading to increased customer loyalty and sales (El Hilali et al., 2021).

Expanding the reach of sustainable branding: Collaboration can expand the reach of sustainable branding efforts by leveraging the network and influence of partner organizations. This includes partnering with NGOs to promote sustainability initiatives or collaborating with other companies to create joint marketing campaigns (Idowu & Towler, 2004).

In conclusion, sustainable branding using big data and business analytics has several contributions to the market research industry. Companies can leverage sustainable branding efforts to improve consumer behaviour, gain insights into consumer trends, develop effective branding strategies, measure the effectiveness of branding campaigns, and collaborate with stakeholders to achieve sustainability goals. As consumers become increasingly aware of environmental concerns, sustainable branding will become even more critical for businesses looking to differentiate themselves from competitors and attract eco-conscious customers (Alcaide et al., 2019).

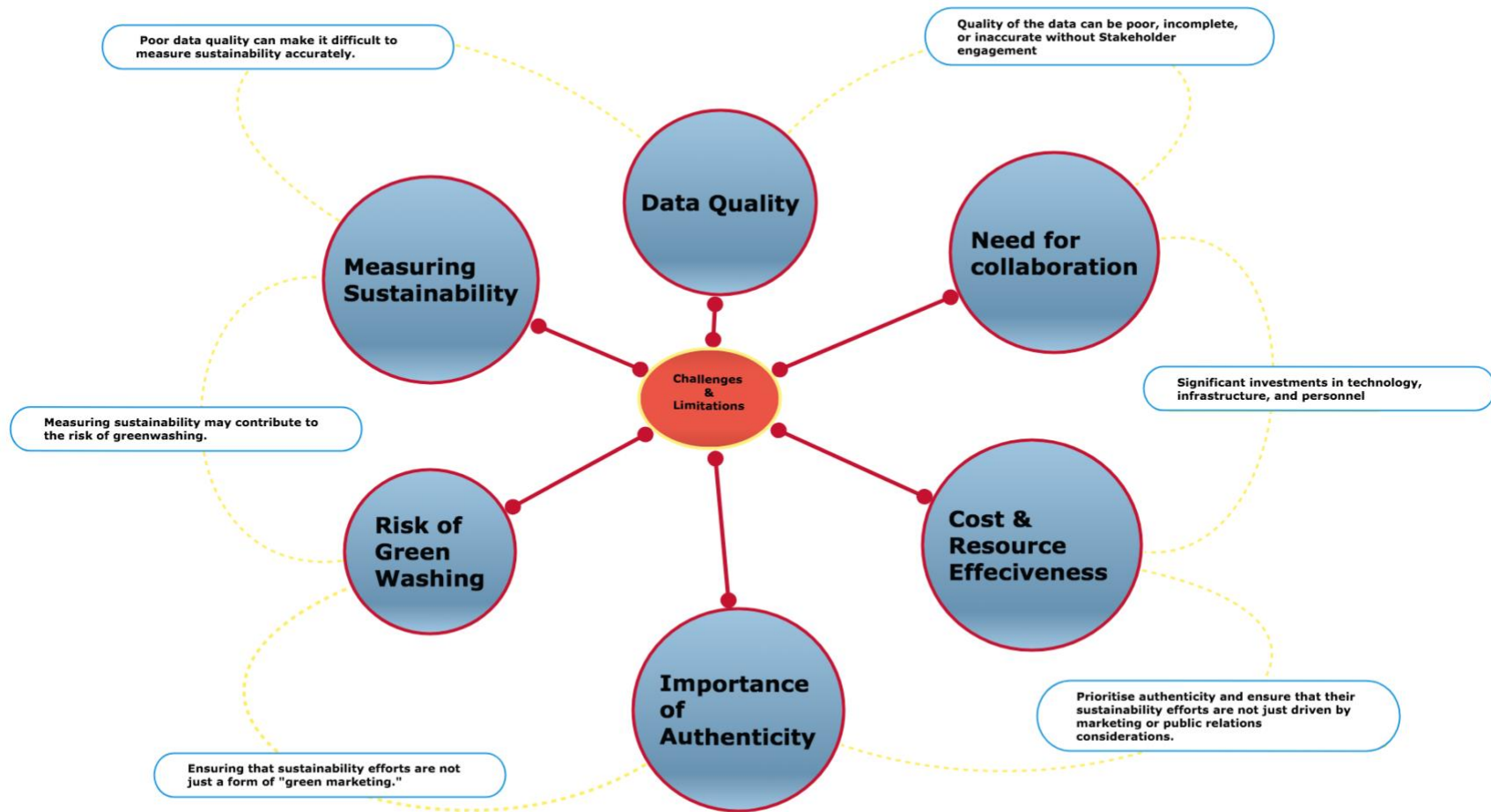
7.3. Challenges and Limitations of the Research

The challenges and limitations of sustainable branding using big data and business analytics are numerous and complex (Moorthy et al., 2015). As consumers become more environmentally conscious, businesses are under increasing pressure to adopt sustainable branding practices. However, the use of big data and business analytics in sustainable branding presents several challenges and limitations that must be considered. Poor data quality can lead to inaccurate insights and measuring sustainability can be challenging and subjective (Toivonen, 2015).

The risk of greenwashing, where companies exaggerate their sustainability efforts, also poses a significant challenge to sustainable branding (Pimonenko et al., 2020). Authenticity is crucial in sustainable branding, and collaboration with stakeholders is essential for success. Finally, implementing sustainable branding strategies can be resource-intensive and costly. Despite these challenges, big data and business analytics still offer valuable insights into consumer behaviour and preferences, allowing companies to create effective sustainable branding strategies that align with their values and mission (Hambali et al., 2020). This section of the thesis will explore these challenges and highlight the importance of carefully considering them to ensure successful sustainable branding efforts.

These challenges and limitations in this study have a relationship which clearly shows difficulty faced in different phases which is illustrated in Figure 7.6:

Figure 7.6: Impact of Sustainable Branding through collaboration



Source: Created by Author (202

This section of the thesis will discuss some of the key challenges and limitations of sustainable branding using big data and business analytics.

1. Data Quality: One of the primary challenges that companies can face when using big data for sustainable branding is the quality of the data (Toivonen, 2015). Big data is often sourced from various platforms such as social media, customer feedback forms, and other digital channels. While these sources provide a wealth of information, the data quality can be poor, incomplete, or inaccurate (Toivonen, 2015). The primary concern for choosing the research to be qualitative based on the industry participants was the concern for data quality. Social media data can be unreliable as it is often skewed towards users who are more vocal about their opinions, which may not represent the overall population which shows a difference between the digital and real-world behaviour (Hilbert, 2016). Similarly, customer feedback forms may have low response rates or may not provide detailed feedback (Hoda et al., 2010), making it difficult for companies to make informed decisions about their sustainable branding efforts.

2. The Challenge of Measuring Sustainability: One of the biggest challenges of sustainable branding is measuring and communicating sustainability performance. While big data and business analytics can provide valuable insights into consumer behaviour and preferences (Nyagadza et al., 2020), it can be difficult to measure the environmental and social impacts of a company's operations and services in some cases which involves transparency and compliance (Schäfer, 2022). Sustainability-related data is often difficult to collect and can be scattered across various sources, making it challenging to obtain a comprehensive picture of a company's sustainability performance (Danciu, 2013). This

challenge is further compounded by the lack of standardization and transparency in sustainability reporting. Measuring the impact of sustainable branding can be challenging due to the complexity of sustainability-related issues and the wide range of factors that can influence consumer behaviour. Additionally, sustainable branding efforts may take a long time to yield results, making it difficult to measure their impact in the short term especially with financial performance.

3. The Risk of Greenwashing: Greenwashing, or the practice of making false or exaggerated claims about the environmental or social benefits of a product or service (Pimonenko et al., 2020), is a significant risk for companies engaging in sustainable branding. Big data and business analytics can help companies identify areas where they can improve their sustainability performance (Cetindamar et al.,2022), but they must be careful not to overstate their achievements or make false claims. However, enforcement can be difficult, particularly in cases where the environmental impact of a product or service is difficult to measure or compare without integration (Loučanová et al.,2021). Sustainable branding demands its users to be accountable for environmental impact which pushes for transparency and honesty in its marketing claims which will be a major challenge and a limitation for its implementation for companies that involves with high usage of energy and resources.

4. *The Importance of Authenticity:* Authenticity is a key factor in sustainable branding, and companies must ensure that their sustainability efforts are aligned with their values and mission (Alcaide et al.,2019). Big data and business analytics can help companies identify areas where they can improve their sustainability performance, but they must ensure that their sustainability efforts are authentic and not driven solely by marketing or public relations considerations.

5. *The Need for Collaboration:* Sustainable branding is a complex and multifaceted challenge that requires collaboration between companies, consumers, governments, and civil society organizations. Big data and business analytics can provide valuable insights into consumer behaviour and preferences, but they must be combined with other approaches, such as stakeholder engagement and multi-stakeholder initiatives, to ensure that sustainable branding efforts are effective. Sustainable branding is effective mostly when it considers the perspectives of the stakeholders from all aspects (Jraisat et al., 2022).

6. *Cost and Resource Intensiveness:* Implementing sustainable branding strategies that utilize big data and business analytics can be costly and resource intensive. It requires significant investments in technology, infrastructure, and personnel to collect, analyse, and interpret sustainability-related data (Tambe, 2014).

Big data and business analytics have the potential to help companies improve their sustainability performance and communicate their sustainability efforts to customers. However, sustainable branding is a complex challenge that requires careful consideration of the challenges and limitations of using big data and business analytics. Companies must be careful not to overstate their achievements or engage in greenwashing, and they must ensure that their sustainability efforts are authentic and aligned with their values and mission. Collaboration between companies, consumers, governments, and civil society organizations is essential to ensure that sustainable branding efforts are effective. While big data and business analytics have the potential to enhance sustainable branding efforts, there are significant challenges and limitations to consider. Limited availability and reliability of data, difficulty in measuring the impact of sustainable branding, risk of misleading or misinterpreting data, and cost and resource intensiveness are all important factors to consider when implementing sustainable branding strategies that utilize big data and business analytics.

7.4. Future Directions for Research

As research continues to expand and evolve, there are many potential future directions that could be pursued. These may involve exploring new areas of study, developing novel methodologies, or applying existing knowledge to solve real-world problems. With advances in technology and ongoing scientific inquiry, the possibilities for future research are vast and exciting. In this context, it is important to consider the current state of knowledge and identify potential gaps in understanding that could be addressed through further investigation. By doing so, researchers can make meaningful contributions to their fields and help to advance our collective understanding of the world around us.

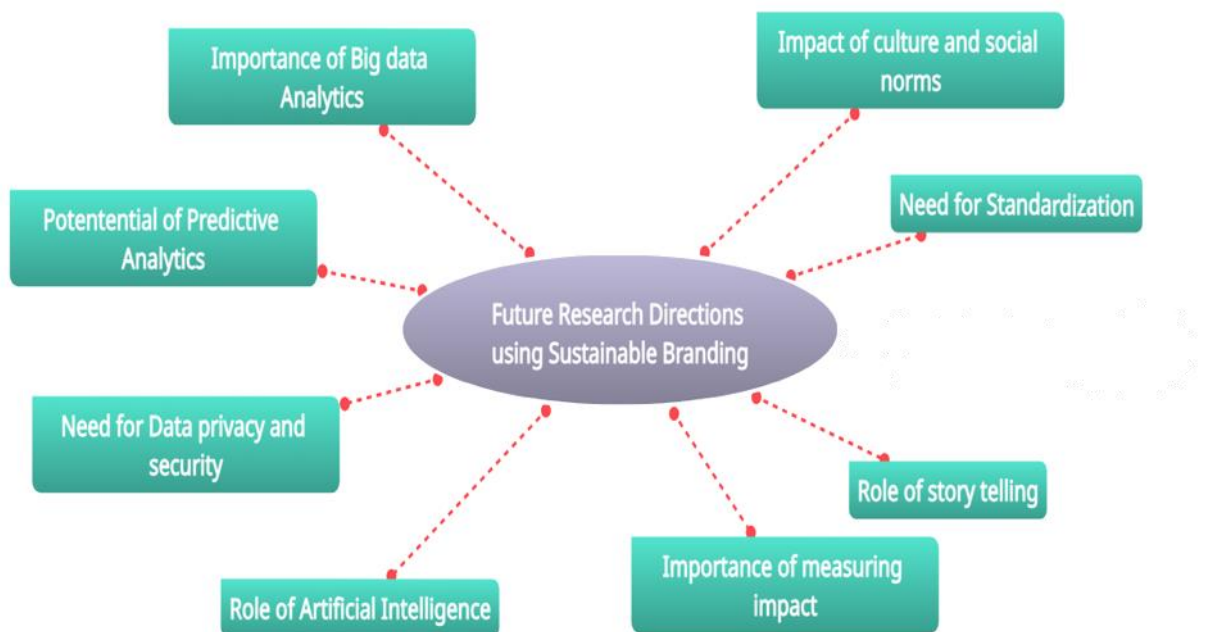


Figure 7.7: Future Research directions for Sustainable Branding

Source: Created by Author (2023)

1. The importance of big data and business analytics: The first point to discuss is the importance of big data and business analytics in sustainable branding. These tools can provide valuable insights into consumer behaviour and preferences, allowing businesses to create more targeted and effective branding strategies (Abimbola, 2001).

2. The potential of predictive analytics: Predictive analytics can be used to identify patterns and trends in consumer behaviour, allowing businesses to anticipate future trends and adjust their branding strategies accordingly (Min et al.,2021). Future research should explore how predictive analytics can be used to promote sustainable branding and create a more sustainable future.

3. The need for data privacy and security: As more businesses collect and analyse consumer data, the need for data privacy and security becomes increasingly important (Tomczak et al.,2018). Future research should explore how businesses can collect and analyse data in a responsible and ethical manner, while protecting consumers' privacy and security.

4. The role of artificial intelligence: Artificial intelligence (AI) has the potential to revolutionize the way that businesses approach sustainable branding. Future research should explore how AI can be used to analyse consumer data and create more personalized and effective branding strategies for collaboration of sustainability-friendly systems (Manzoor et al.,2021).

5. *The impact of culture and social norms:* Sustainable branding is influenced by cultural and social norms, which vary widely across different regions and demographics. Future research should explore how big data and business analytics can be used to understand these cultural and social factors, and how businesses can tailor their branding strategies that suit the marginalised population (Burrell & Fourcade, 2021).

6. *The need for standardization:* As sustainability becomes more important in branding, there is a growing need for standardization and regulation (Thomas, 2019). Future research should explore how standardized metrics and frameworks can be developed to evaluate the sustainability of branding strategies, and how these metrics can be used to benchmark performance across different industries and sectors (Sanchez-Planelles et al., 2021).

8. *The role of storytelling:* Storytelling is a powerful tool for branding, and it can be used to promote sustainability as well (Nyagadza et al., 2020). Future research should explore how storytelling can be used to communicate sustainability messages to consumers, and how businesses can use storytelling to build emotional connections with their customers around sustainability issues.

9. *The importance of measuring impact:* Finally, it is important to measure the impact of sustainable branding strategies in order to evaluate their effectiveness and identify areas for improvement (Baldauf et al., 2003). Future research should explore how businesses can measure the impact of their sustainable branding efforts, and how these metrics can be used to drive continuous improvement and innovation in sustainability practices.

In conclusion, sustainable branding is an important aspect of modern business and has the potential to drive positive environmental and social change (Cetindamar et al.,2022). To ensure its continued success, it is important for researchers and businesses to explore new areas of study, develop innovative methodologies, and apply existing knowledge in novel ways. Future research should focus on key areas such as big data, predictive analytics, data privacy and security, artificial intelligence, cultural norms, standardization, storytelling, and impact measurement. By doing so, researchers can make meaningful contributions to their respective fields and help to advance sustainability practices across industries and sectors. Ultimately, the goal of sustainable branding is to promote a more equitable and sustainable future for all.

7.5. Conclusion

In conclusion, this thesis has explored the contributions of sustainable branding using big data and business analytics in the market research industry. The study has identified that sustainable branding has a significant impact on consumer behaviour, creating opportunities for organizations to develop innovative strategies that promote environmental and social sustainability (Cetindamar et al.,2022). The use of big data in sustainable branding analysis presents significant benefits, including the ability to identify trends and patterns in consumer behaviour, as well as providing insights into the effectiveness of marketing campaigns (Nyagadza et al.,2020).

The study has also highlighted the importance of business analytics in developing effective sustainable branding strategies. This involves the use of data analysis techniques to inform decision-making, such as identifying target audiences and selecting appropriate communication channels to maximize the impact of sustainable branding initiatives (Abimbola, 2001). Furthermore, measuring the effectiveness of sustainable branding is critical to ensure that it aligns with organizational objectives and generates a positive impact on society and the environment (Hansen & Schrøder,2018).

Collaboration between organizations is necessary to achieve more significant impacts through sustainable branding (Kotler et al.,2020). By working together, businesses can share knowledge and resources, pool their efforts, and create more meaningful change (Kunz et al., 2017). An example of such collaboration is the development of sustainable supply chains, which involve close cooperation between suppliers, manufacturers, and retailers to reduce waste and promote sustainable practices (Jraisat et al., 2022). Despite the many benefits of sustainable branding using big data and business analytics, there are also

challenges and limitations. These include data privacy concerns, the need for specialized skills and expertise, and the high costs of implementing sustainable branding initiatives (Tomczak et al.,2018). However, these challenges are not insurmountable and can be addressed through careful planning and collaboration. Looking ahead, there are several future directions for sustainable branding in the market research industry.

One key area is the integration of artificial intelligence (AI) and machine learning into sustainable branding analysis (Kozinets,2021). This will enable businesses to analyse vast amounts of data quickly and accurately, providing deeper insights into consumer behaviour and helping to shape more effective sustainable branding strategies. Additionally, there needs to be a greater focus on developing metrics for measuring the impact of sustainable branding initiatives and developing standards for evaluating sustainability performance across industries (Baldauf et al., 2003).

In summary, sustainable branding using big data and business analytics offers significant potential for businesses to create positive change and promote sustainability. By developing effective sustainable branding strategies, organizations can improve their brand reputation, attract new customers, and generate positive environmental and social impacts. While there are challenges and limitations to overcome, the future looks promising for sustainable branding and its role in shaping a more sustainable future.

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session chairpersons for their competent evaluation of a large number submissions. I would like to take this opportunity to place on record my sincere appreciation to members of organizing team for their untiring efforts., pp.301, 2021.

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APPENDIX I-PARTICIPANT INFORMATION LETTER



RESEARCH TITLE: The Impact of Sustainable Branding using Big Data & Business Analytics in the Market Research Industry

This study aims to examine the impact of sustainable branding on brand image, customer loyalty and operational efficiency in the market research industry, using the sustainability initiatives of United Nations' Sustainable Development Goals (SDGs) framework. The research will utilize a qualitative approach, including semi-structured interviews with industry experts and a priori codes from secondary sources.

The study will investigate how big data and business analytics can be used to enhance sustainable branding efforts by identifying key sustainability metrics and tracking their impact on a company's performance. By analysing the data, the research will develop an emergent model for designing and implementing sustainable branding strategies that support the SDGs while improving brand image, customer loyalty, and operational efficiency in the market research industry.

Your expertise in the market research industry would be invaluable in contributing to this study. With your permission, we would like to conduct a semi-structured interview with you to gain insight into your experience with sustainable branding in the industry. Participation is voluntary, and all information gathered will be treated confidentially. If you have any questions or require additional information, please do not hesitate to contact us.

University of Wales Trinity Saint David
London Campus

APPENDIX II- RESEARCH PARTICIPANT CONSENT FORM



UWTSD Ethics Reference Number:

Participant Name and ID:

Title of Study: The Impact of Sustainable Branding using Big Data and Business Analytics in the Market Research Industry.

**Participant to complete this section Please initial each box*

1. I confirm that I have read and understand the introductory letter of the above-named study, including the information provided in the tables.	
2. I understand that my participation is totally voluntary and that I can withdraw at any moment, without giving any reason for that.	
3. I agree to take part in the study.	
4. I agree to the interview being audio recorded.	
5. I agree to the use of anonymized quotes used in any publications.	
I agree to my quotes being attributed directly to me (write Yes/No).	

Table 1: Project Overview

Participants will be interviewed regarding their experiences with sustainable branding, big data, and business analytics in the market research industry. The interviews will be video/audio recorded and last approximately 30-75 minutes. Quotes may be used in publications, but all identifying information will be removed.

Table 2: Potential Risks

There are no known risks associated with participating in this study.

Table 3: Potential Benefits

The potential benefits of participating in this study include contributing to a better understanding of the impact of sustainable branding, big data, and business analytics on the market research industry.

Table 4: Confidentiality and Data Protection

All identifying information will be removed from any publications resulting from this study. All data will be stored securely in accordance with University of Wales Trinity Saint David data protection policy.

Table 5: Contact Information

If you have any questions about the study or your participation in it, please contact the researcher, [insert name and contact information]. If you have any concerns about the conduct of the study, please contact his Supervisor, Assoc. Prof Dennis Pepple, d.pepple@uwtsd.ac.uk at University of Wales Trinity Saint David, United Kingdom

.....
Signature of Participant
.....
Date

.....
Signature of Researcher
.....
Date

APPENDIX III- FIELD ACCESS DOCUMENT

INDIA & UNITED KINGDOM



Yr Athro/Professor Medwin Hughes DL DPHI DPS FRSA FLSW
Is-Ganghellor/Vice-Chancellor

13th May 2022

To Whom It May Concern

Dear Sir/Madam,

Re: Doctoral Research Fieldwork Access - Vishnu Syam Syamlal (1906860)

The above-named student Vishnu Syam Syamlal is currently undertaking his Doctoral research (DBA) on the London campus, and the research project has been confirmed through UWTSD approval processes. The University supports his request that will see you take part as a respondent in his fieldwork.

His research titled **‘The impact of sustainable branding through big data and business analytics in the market research industry’** is expected to provide new knowledge which will be useful to both an academic and management audience in India and the UK. The study focuses on exploring competitive advantage through strategically connecting the concept of branding with globally accepted sustainability initiatives of UN Sustainable development goals and big data analytics.

The research is intended to collect qualitative data using Semi-structured Interviews, Focused-group observation from respondents who will be drawn from a population of Market research companies and Information technology companies in market research. Employees involved in branding and sustainability using big data and business analytics as a part of market research will be part of this research. The research will maintain the participants' privacy and confidentiality in line with the University's ethical guidelines.

Please contact me or university should you have any questions regarding his candidacy, the research or his capability. You may also contact his Supervisor, Asso. Prof Dennis Pepple, d.pepple@uwtsd.ac.uk. Vishnu can also be contacted directly through his university email 1906860@student.uwtsd.ac.uk.

Yours Faithfully,

J.P.O

Campws Caerfyrddin
Carmarthen Campus
SA31 3EP
01267 676767

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Lampeter Campus
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APPENDIX V- SAMPLE INTERVIEW TRANSCRIPTS

INTERVIEW 1

Participant ID	Gender	Industry	Position	Industry Experience	country	Age
INTERVIEWEE 1	F	MARKET RESEARCH	DIRECTOR-SOUTH ASIA	10+	CHINA	35-40

INTERVIEWER: Hi, can you introduce yourself and tell us about your background in the market research industry?

INTERVIEWEE 1: Hi there, I'm the Director for South Asia at a market research company based in China. I've been in the industry for over ten years now and am an executive member of strategic sustainability in my company.

SUSTAINABILITY INITIATIVES

INTERVIEWER: That's interesting & Great to have you here. We will start with the sustainability initiatives section.

INTERVIEWEE 1: ok

INTERVIEWER: Can you give me an example of how big data analysis has helped a sustainable brand understand consumer behaviour better?

INTERVIEWEE 1: Sure. One example is the clothing brand Patagonia, which uses big data to track its customers' buying patterns and preferences. By analysing this data, they identified that their customers were interested in sustainability and environmental concerns. Based on this insight, Patagonia launched a marketing campaign called "Don't Buy This Jacket," encouraging customers to only buy what they need, highlighting the impact of overconsumption on the environment.

INTERVIEWER: That's a great example. How can businesses leverage big data and analytics to create a positive brand image for sustainable brands?

INTERVIEWEE 1: Big data can help businesses identify the most effective marketing channels, messaging, and strategies for reaching their target audience with their sustainability message. It can also help businesses understand what their customers value most about sustainability and tailor their branding accordingly. For instance, a business might use big data to identify that its customers are more concerned about reducing waste than using renewable energy sources and adjust its messaging to reflect that priority.

INTERVIEWER: That makes sense. How do performance evaluation metrics play a role in measuring the success of sustainable branding strategies?

INTERVIEWEE 1: Performance evaluation metrics provide businesses with a way to measure the impact of their sustainability initiatives on the environment and society, as well as on their bottom line. Metrics such as carbon footprint reduction, waste reduction, and employee engagement can help businesses track their progress towards sustainability goals and demonstrate their commitment to stakeholders.

INTERVIEWER: Interesting. Can you give me an example of how big data can be used to identify areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 1: Sure. Big data can help businesses identify the regions or demographics where sustainability is a top concern and concentrate their marketing efforts there. These tools provide invaluable insights into customer behaviour and preferences, which is essential for developing effective sustainable branding strategies. By analysing data on customer interactions with the brand, companies can identify areas where they need to improve their sustainability efforts, as well as areas where they are already performing well. This information can help companies create more targeted and effective sustainability messaging that resonates with customers and builds brand loyalty over time.

INTERVIEWER: Great. And what are some of the key attributes that businesses should focus on when positioning their sustainable branding strategy to create brand equity in the market research industry?

INTERVIEWEE 1: Businesses should focus on building a strong brand identity that communicates their commitment to sustainability and ethical practices. This could involve incorporating sustainability into their mission and values, communicating transparently about their sustainability initiatives, and engaging with stakeholders to build trust and credibility. Additionally, businesses should focus on providing high-quality products or services that offer a tangible benefit to consumers beyond just being sustainable. Overall, the goal should be to position the brand as a leader in sustainability and to differentiate it from other brands in the market.

BRANDING INSIGHTS

INTERVIEWER: That's interesting! Next. We will start with the Branding insights section. Can you give an example of a successful sustainability partnership that helped a company strengthen its sustainable branding efforts?

INTERVIEWEE 1: Sure, an example is the partnership between Adidas and Parley for the Oceans. The partnership had both environmental and social benefits as Parley for the Oceans collects plastic waste from beaches and coastal regions, create yarn from recycled waste, which Adidas uses to create shoes and other products. This collaboration enabled Adidas to create more sustainable products while also raising awareness about ocean pollution.

INTERVIEWER: That's a great example. With data privacy concerns being a major issue, how can companies ensure compliance with data privacy laws in their efforts to develop sustainable branding strategies?

INTERVIEWEE 1: Companies can ensure compliance by implementing robust data protection policies and procedures that align with regulations such as the GDPR and CCPA. Our sustainability reports and disclosures provide detailed information on our environmental performance and the steps we are taking towards achieving our sustainability targets. This level of transparency allows us to build trust and credibility with our stakeholders and reinforce our sustainable brand identity.

INTERVIEWER: Thanks for explaining that. Can you provide an example of a sustainable initiative that has helped a company create brand equity in the market research industry?

INTERVIEWEE 1: One example is the Body Shop's 'Enrich Not Exploit' campaign, which aimed to create a positive impact on both society and the environment. Data-driven companies in the market research industry can leverage sustainable branding to collaborate with other companies for sustainable initiatives. By incorporating sustainability into their branding strategies, they can attract like-minded businesses and build strong partnerships towards a common goal. Through this campaign, they highlighted their commitment to using sustainably sourced ingredients and reducing their carbon footprint, among other initiatives. This strategy helped the company differentiate themselves from competitors, position themselves as a leader in sustainability and build a loyal customer base.

INTERVIEWER: That's impressive. Lastly, how can collaborations and partnerships be leveraged to strengthen sustainable branding efforts?

INTERVIEWEE 1: Collaborations and partnerships can be leveraged to strengthen sustainable branding efforts by pooling resources and expertise to create innovative and impactful sustainability initiatives. For example, partnering with NGOs or other sustainability-focused organizations can lend credibility to a brand's sustainability efforts, increase its visibility and help it reach a broader audience. It can also help brands identify areas where they can make a positive impact and innovate more effectively.

STAKEHOLDER ENGAGEMENT

INTERVIEWER: Thank you for sharing your insights on the intersection of qualitative research and big data analytics. In your opinion, what are some challenges that businesses may face when using these research methods?

INTERVIEWEE 1: One challenge is that collecting and analysing qualitative data can be time-consuming and resource-intensive, which could pose a challenge for businesses that operate in fast-paced industries. Additionally, there may be some subjectivity associated with interpreting qualitative data, making it important for researchers to use rigorous data analysis methods to ensure the results are reliable.

INTERVIEWER: I see. Do you have any advice for businesses looking to integrate qualitative research into their market research strategies?

INTERVIEWEE 1: Yes, my advice would be to approach qualitative research with a clear research question or hypothesis in mind. This will help guide the data collection process and make it easier to analyse and interpret the data. It's also important to engage with participants in a way that fosters open and honest communication, as this can lead to richer and more meaningful insights.

INTERVIEWER: That's great advice. Finally, where do you see the future of market research heading, particularly with regards to the use of qualitative and quantitative research methods?

INTERVIEWEE 1: I believe that the future of market research lies in the integration of both qualitative and quantitative research methods. By combining these two approaches, businesses can gain a more comprehensive understanding of consumer behaviour and preferences, leading to more effective marketing

strategies and increased profitability. Additionally, advancements in technology such as artificial intelligence and machine learning are likely to play an increasingly important role in data analysis and interpretation, further enhancing the accuracy and reliability of market research findings.

OPERATIONAL EFFICIENCY

INTERVIEWER: Great insights for this qualitative research! Next. We will start with operational efficiency

INTERVIEWEE 1: Alright!

Interviewer: That's interesting. Can you give an example of how big data analytics can be used to identify areas for sustainability improvements?

Interviewee 1: Sure, let's say a company wants to reduce their carbon footprint. They could use data on their energy consumption and emissions to pinpoint areas where they can make changes. For example, they might identify that their production process uses a lot of energy or that they have high transportation emissions. By addressing these areas, they can reduce their impact on the environment while also improving their bottom line.

Interviewer: And how do you ensure that the data collection techniques are providing relevant insights for sustainable branding strategies?

Interviewee 1: It's important to start by defining what information is needed to inform sustainable branding strategies. Effective branding strategies that prioritize operational efficiency and cost-effectiveness can help companies

reduce costs and increase profitability, while also communicating their commitment to sustainability.

Interviewer: How do predictive models and forecasting come into play when developing sustainable branding strategies?

Interviewee 1: Predictive models and forecasting can help businesses anticipate future trends in consumer behaviour and preferences. By analysing historical data, we can identify patterns and predict future outcomes, which can inform the development of sustainable branding strategies that resonate with consumers. For instance, we can predict the uptake of eco-friendly products and services and tailor branding strategies to meet that demand.

Interviewer: Finally, can you explain how simulations and real-time experiences can be used to refine sustainable branding strategies before implementation?

Interviewee 1: Simulations allow us to create hypothetical scenarios that test the effectiveness of sustainable branding strategies. By simulating different scenarios, we can identify potential issues and fine-tune our strategies before implementation. Real-time experiences, on the other hand, provide an opportunity to analyse how customers react to sustainable branding in real-life situations. This feedback can then be used to further refine branding strategies to optimise their effectiveness.

THANKSGIVING

Researcher: Thank you for taking the time to meet with me today.

Director: You're welcome. It's my pleasure.

Researcher: I really appreciate your insights into the market research industry.

Director: Happy to share my experience with you.

Researcher: Your knowledge and expertise have been invaluable to my research.

Director: I'm glad I could be of help.

Researcher: Thank you again for your time and for sharing your expertise with me.

Director: No problem at all. Good luck with your research.

Reply:

The researcher sent a quick thank-you email to the director, expressing his gratitude for the insightful interview and thanking her for her time and expertise.

INTERVIEW 2

Participant ID	Gender	Industry	Position	Industry Experience	country	Age
INTERVIEWEE 2	M	MARKET RESEARCH	SENIOR MANAGER	10+	UNITED KINGDOM	35-40

INTERVIEWER: Hi, can you introduce yourself and tell us about your background in the market research industry?

INTERVIEWEE 2: Hi, sure. My name is INTERVIEWEE 2 and I've been working in the market research industry for over 20 years. I started my career as a junior analyst and worked my way up to senior management positions in various firms.

SUSTAINABILITY INITIATIVES

Interviewer: Good afternoon, thank you for speaking with me today. Let's start with the first section of Sustainability initiatives. How can a company use sustainability as a competitive advantage in the market?

INTERVIEWEE 2: By integrating sustainable practices into its operations and products, a company can differentiate itself from competitors and appeal to consumers who prioritize environmental and social responsibility. This can create a unique selling point that sets the company apart from others in the market and drives customer loyalty.

Interviewer: What are some of the challenges that companies face when implementing sustainable business practices, and how can big data help address these challenges?

INTERVIEWEE 2: One of the biggest challenges' companies face is measuring the impact of their sustainability efforts. Big data can help by providing insights into the effectiveness of sustainability initiatives, such as energy usage, waste reduction, and carbon emissions. These insights can help companies to identify areas where they can improve their sustainability efforts and make more informed decisions about which initiatives to prioritize.

Interviewer: How can companies use big data to identify opportunities for sustainability innovation?

INTERVIEWEE 2: Companies can analyse data from various sources, such as customer feedback, supply chain operations, and industry trends, to identify opportunities for sustainability innovation. By examining this data, companies can identify areas where they can reduce their environmental impact or increase their positive social impact. For example, a company may identify an opportunity to reduce packaging waste by introducing a reusable packaging system.

Interviewer: Can you discuss how big data can be used to measure the impact of sustainability initiatives on brand reputation and customer loyalty?

INTERVIEWEE 2: Big data can be used to analyse customer sentiment and behaviour to evaluate the impact of sustainability initiatives on brand reputation and customer loyalty. By monitoring social media, reviews, and customer feedback, companies can understand how customers view their sustainability efforts and whether these efforts are improving brand perception and loyalty. This

information can then be used to refine sustainability initiatives and improve overall brand image.

Interviewer: Finally, what advice would you give to companies looking to implement sustainable business practices through branding?

INTERVIEWEE 2: My advice would be to start with a clear understanding of your company's sustainability goals and priorities. Our branding strategy should reflect our commitment to sustainability while also aligning with the values and preferences of our target audience. Qualitative research can provide insights into what those values and preferences are, helping us craft a messaging strategy that resonates with consumers. From there, develop a comprehensive plan that includes measurable targets and metrics to track progress. Use big data to inform your sustainability initiatives and regularly evaluate the impact of your efforts. Finally, communicate transparently with customers and stakeholders about your sustainability goals, progress, and challenges.

BRANDING INSIGHTS

Interviewer: Those are all great points. Can you elaborate on how sustainability partnerships can help companies access new markets?

Interviewee 2: Certainly! When companies partner with organizations that share their commitment to sustainability, they can tap into new customer bases that prioritize eco-friendliness and social responsibility. These partnerships can also help businesses expand their reach globally by gaining access to international networks and markets that are increasingly focused on sustainability.

Interviewer: That makes sense. Moving on to the topic of data privacy, what steps can companies take to ensure compliance when developing sustainable branding strategies?

Interviewee 2: It's important for companies to engage legal experts to assess and advise on compliance with data privacy laws. The experts can identify potential risks and provide guidance on how to mitigate those risks. Companies should also implement internal policies and procedures that align with data privacy regulations and ensure that everyone involved in developing the branding strategy is aware of the importance of data privacy compliance.

Interviewer: Thank you for explaining that. Can you give an example of a sustainable initiative that has helped a company create brand equity in the market research industry?

Interviewee 2: Sure. IBM's Smarter Planet campaign is a great example. The campaign focused on showcasing how IBM's technology solutions could help create a more sustainable world. By highlighting its commitment to sustainability and social responsibility, IBM was able to differentiate itself from competitors and establish itself as a leader in the industry.

Interviewer: That's a great example. Finally, could you explain how collaborations and partnerships can be leveraged to strengthen sustainable branding efforts?

Interviewee 2: Absolutely. Collaborations and partnerships can help businesses build credibility and trust with customers by demonstrating their commitment to sustainability through actions rather than just words. By partnering with like-

minded individuals or organizations, businesses can leverage each other's strengths and expertise to achieve common goals, while also expanding their reach and impact. Additionally, partnerships can lead to innovative solutions and ideas that might not have been possible otherwise.

STAKEHOLDER ENGAGEMENT

Interviewer: That's interesting. Could you elaborate on how qualitative research methods can help in developing a deeper understanding of consumer perceptions towards sustainable branding?

Interviewee 2: Qualitative research methods, such as focus groups, in-depth interviews or surveys, can provide insights into the underlying motivations and attitudes that drive consumer behaviour towards sustainability. By exploring these attitudes in depth, businesses can identify key drivers of consumer behaviour towards sustainable products or services. This information can then be used to develop more effective messaging and marketing campaigns that resonate with consumers.

Interviewer: That makes sense. How can qualitative data complement the quantitative data used in big data analytics to gain a competitive edge?

Interviewee 2: While quantitative data provides valuable insights into customer behaviour at scale, it lacks the context necessary to fully understand customer attitudes and experiences. Qualitative data adds context, depth, and understanding to quantitative data by providing insights into customer behaviour, feelings, and motivations. This can help identify new opportunities, improve products, and enhance the overall customer experience.

Interviewer: Moving on to the topic of sustainable products or services, how can insights gained through qualitative research be used to identify behavioural patterns and preferences related to sustainability?

Interviewee 2: Qualitative research can provide a deep understanding of consumer attitudes towards sustainability, which can be used to inform product development and marketing strategies. By identifying factors that influence consumer behaviour, such as personal values, social influences or lifestyle choices, businesses can tailor their products and services to better align with customer needs and preferences.

Interviewer: Interesting. Finally, how can businesses optimize their use of big data analytics to maximize ROI based on the insights generated from qualitative research?

Interviewee 2: By using big data analytics to identify patterns and trends in customer purchasing behaviour, businesses can validate and contextualize the insights generated from qualitative research. Through qualitative research, companies can gain a deeper understanding of the social and environmental impact of their sustainability initiatives, which can inform data-driven strategies for achieving optimal performance. Additionally, tracking the impact of these decisions over time can help businesses refine their approach and continue to improve their sustainability efforts.

OPERATIONAL EFFICIENCY

Interviewer: Thank you for those insights. Starting with the topic of operational efficiency, how can sustainably branding strategies be integrated into existing data-driven operations to improve operational and cost efficiency?

Interviewee 2: By incorporating sustainability metrics into the analysis of business performance, companies can identify areas where sustainable practices can reduce costs while also improving environmental outcomes. This could include reducing waste, energy usage or emissions. Additionally, by integrating sustainable practices into day-to-day operations, businesses can improve their reputation with customers and stakeholders, which can lead to increased sales and revenue.

Interviewer: That's interesting. Moving on to data collection techniques, how can these be optimized to gather relevant insights for sustainable branding strategies?

Interviewee 2: Collecting data from multiple sources such as customer feedback, sales records, and online behaviour can provide a more complete picture of consumer attitudes towards sustainability. By leveraging this data effectively, businesses can identify key trends and patterns that can inform the development of sustainable branding strategies.

Interviewer: That makes sense. How can predictive models and forecasting be used to enhance the effectiveness of sustainable branding strategies?

Interviewee 2: Predictive models and forecasting techniques can help businesses anticipate future demand for sustainable products or services, which can inform decisions around product development, pricing, and marketing. These tools can also help identify potential risks or opportunities related to sustainability, allowing businesses to adjust their approach accordingly.

Interviewer: Finally, could you explain how simulations and real-time experiences can be used to test and refine sustainable branding strategies before implementation?

Interviewee 2: Testing sustainable branding strategies using simulations and real-time experiences allows businesses to fine-tune their approach before implementing it in the market. For example, through A/B testing, businesses can compare the effectiveness of different messaging or marketing tactics in real-time. This can help them identify which strategies are most effective and make adjustments, accordingly, reducing the risk of failure or negative consequences.

THANKSGIVING

Researcher: Thank you for taking the time to meet with me today.

Senior Manager: You're welcome. It's my pleasure.

Researcher: I really appreciate your insights into the market research industry.

Senior Manager: Glad to be of service.

Researcher: Your knowledge and expertise have been invaluable to my research.

Senior Manager: I'm happy to have been able to assist you.

Researcher: Thank you again for your time and for sharing your expertise with me.

Senior Manager: Not a problem at all. It was great talking with you.

INTERVIEW 3

Participant ID	Gender	Industry	Position	Industry Experience	country	Age
INTERVIEWEE 3	M	BIG DATA & BUSINESS ANALYTICS	ASSISTANT MANAGER	5+	INDIA	30-35

INTERVIEWER: Hi, can you introduce yourself and tell us about your background in the market research industry?

INTERVIEWEE 3: Sure! My name is INTERVIEWEE 3, and I am currently working as an assistant manager in the big data and business analytics industry. I have over five years of experience working specifically in this industry in India.

SUSTAINABILITY INITIATIVES

INTERVIEWER: Great to have you here. Let's start with the first section named Sustainability Initiatives. How does big data analysis help in creating a better understanding of consumer behaviour towards sustainable products or services?

INTERVIEWEE 3: Big data can give insight into the demographic of consumers who are more likely to purchase sustainable products or services. By analysing consumer behaviour patterns based on factors such as age, location, income level, and purchasing history, businesses can better understand how to target their marketing efforts towards sustainability initiatives.

INTERVIEWER: That makes sense. Can you describe how big data and business analytics contribute to the development of a positive brand image for sustainable brands?

INTERVIEWEE 3: Big data and analytics can help sustainable brands build trust by providing transparency in their supply chain and making their sustainability efforts visible. This helps create a positive brand image that aligns with the values of environmentally conscious consumers. Through sustainable branding and big data analytics, companies can unlock a wealth of information on their brand's sustainability and use this knowledge to evaluate their performance and enhance their reputation. By tracking and measuring the impact of their sustainability initiatives, companies can also communicate their progress and success to stakeholders, which further enhances their brand image.

INTERVIEWER: Interesting. Moving on to the next question, what role do performance evaluation metrics play in measuring the success of sustainable branding strategies?

INTERVIEWEE 3: Sustainable brand performance evaluation metrics are essential to compare goals set against actual outcomes. Metrics can include things like energy efficiency, waste reduction, and water conservation. These metrics help companies measure the success of their sustainability initiatives and make adjustments as needed to ensure that they are achieving their desired outcomes.

INTERVIEWER: Thank you for explaining that. How can big data help in identifying areas where sustainable branding can have the maximum impact on ROI?

INTERVIEWEE 3: Remember we discussed a bit in the previous question 2 (Through sustainable branding and big data analytics, companies can unlock a wealth of information on their brand's sustainability and use this knowledge to evaluate their performance and enhance their reputation).

Big data can pinpoint areas of high demand for sustainable products and services, leading to increased ROI. By using big data and business analytics, we can measure the impact of our sustainable branding initiatives on our operations and bottom line. This approach is not only good for the environment but also makes good business sense. By analysing sales data and consumer behaviour patterns, businesses can identify opportunities to increase revenue by integrating sustainability initiatives into their product offerings. For example, if data shows that consumers in a certain region are highly interested in eco-friendly products, businesses can tailor their marketing efforts towards these consumers to increase sales.

INTERVIEWER: That's really helpful. Finally, in this section, what are the attributes for positioning sustainable branding strategy to create brand equity in the market research industry?

INTERVIEWEE 3: Consistency in messaging and practices would be essential for building trust among consumers and establishing a strong brand image. Companies should ensure that their sustainability initiatives align with their overall brand values and should communicate their efforts transparently to stakeholders. Additionally, it is important to engage with consumers and gather feedback to continually improve sustainability initiatives and build brand equity.

BRANDING INSIGHTS

INTERVIEWER: Thank you for sharing your insights on the Sustainability Initiatives section. Let's move on to the second section, Branding Insights. Can you describe the importance of sustainability partnerships in developing and positioning sustainable branding strategies?

INTERVIEWEE 3: Sustainability partnerships can provide businesses with valuable insights into emerging sustainability trends and practices, helping them stay ahead of the curve. By working together with other organizations that share similar values, companies can amplify their message and create more impactful sustainability initiatives. Such collaborations can also build trust among consumers who see a collective effort towards a shared cause.

INTERVIEWER: That's a great point. How can companies ensure compliance with data privacy laws in their efforts to develop sustainable branding strategies?

INTERVIEWEE 3: Providing clear and concise disclosures of data privacy practices to customers can enhance transparency and build trust in sustainable branding efforts. Companies should make sure they are following all relevant data privacy laws and regulations and communicate their policies to customers clearly. By doing so, they can strengthen their reputation as an ethical and responsible brand.

INTERVIEWER: Thank you for explaining that. Can you give some examples of sustainable initiatives that have helped companies to create brand equity in the market research industry?

INTERVIEWEE 3: Sure, one example is Patagonia's "Worn Wear" program, which encourages customers to repair and reuse their clothing, rather than buying new items. This initiative has helped position Patagonia as a leader in sustainable fashion, building brand equity among environmentally conscious consumers. Another example is Nike's Reuse-A-Shoe program, which collects old shoes and turns them into sports surfaces. This innovative initiative has helped Nike build a positive brand image and differentiate itself from competitors.

INTERVIEWER: Those are great examples. Finally, can you explain how collaborations and partnerships can be leveraged to strengthen sustainable branding efforts?

INTERVIEWEE 3: Collaborating with other organizations can help companies expand their reach and resources when it comes to sustainability initiatives. For example, partnering with NGOs or other stakeholders can facilitate access to expertise and funding, and can also help companies build stronger relationships with customers who care about sustainability. Additionally, collaborations with celebrities or influencers who are passionate about sustainability can help raise awareness and promote the brand's sustainability efforts to a wider audience.

STAKEHOLDER ENGAGEMENT

INTERVIEWER: Thank you for your insights on the Branding Insights section. Let's move on to the next section, Stakeholder Engagement. How can qualitative research methods help in developing a deeper understanding of consumer perceptions towards sustainable branding?

INTERVIEWEE 3: Qualitative research can help in developing a thorough understanding of what consumers think about sustainable branding, how they

perceive it, and what factors influence their decision-making process. By conducting in-depth interviews and focus groups with consumers, businesses can gain valuable insight into the motivations and barriers to sustainable consumption, helping them to improve their sustainability efforts.

INTERVIEWER: That's interesting. In what ways can qualitative data complement the quantitative data used in big data analytics to gain a competitive edge?

INTERVIEWEE 3: Qualitative data can reveal insights into the emotions and motivations behind consumer behaviour that cannot be captured through quantitative data alone. By combining qualitative and quantitative data, businesses can gain a more holistic understanding of consumer behaviour related to sustainability, enabling them to develop more effective sustainability initiatives and gain a competitive edge.

INTERVIEWER: That makes sense. Can you describe how insights gained through qualitative research can be used to identify behavioural patterns and preferences related to sustainable products or services?

INTERVIEWEE 3: By conducting in-depth interviews and focus groups with consumers, businesses can gain a better understanding of the underlying factors driving customer behaviour related to sustainability, such as attitudes, beliefs, values, and social norms. These insights can then be used to develop more targeted and effective sustainability initiatives that align with consumer preferences.

INTERVIEWER: Thank you for explaining that. Finally, how can businesses optimize their use of big data analytics to maximize ROI based on the insights generated from qualitative research?

INTERVIEWEE 3: By using machine learning algorithms to analyse qualitative research data, businesses can gain a deeper understanding of the underlying factors driving customer behaviour related to sustainability. This can lead to more accurate predictions of consumer behaviour and enable businesses to develop more effective sustainability initiatives that have a higher ROI. Additionally, businesses can use big data analytics to track the impact of their sustainability initiatives over time and make adjustments as needed to ensure maximum impact.

OPERATIONAL EFFICIENCY

INTERVIEWER: Thank you for your insights on the Stakeholder Engagement section. Let's move on to the final section, Operational Efficiency. How can sustainable branding strategies be integrated into existing data-driven operations to improve operational and cost efficiency?

INTERVIEWEE 3: By utilizing data analytics, companies can track and analyse their environmental impact and implement sustainable practices that are cost-effective. For example, by analysing energy usage data, businesses can identify areas where they can reduce consumption and save on costs while also reducing their carbon footprint. This can help them integrate sustainable branding strategies into their existing operations and improve overall operational efficiency.

INTERVIEWER: That's great. Can you describe how data collection techniques can be optimized to gather relevant insights for sustainable branding strategies?

INTERVIEWEE 3: The use of machine learning algorithms and artificial intelligence can optimize data collection techniques by analysing vast amounts of data quickly and accurately, providing relevant insights for sustainable branding strategies. Predictive modelling and sentiment analysis can help businesses anticipate consumer preferences and behaviours related to sustainability, allowing them to develop more effective branding strategies.

INTERVIEWER: Interesting. In what ways can predictive models and forecasting be used to enhance the effectiveness of sustainable branding strategies?

INTERVIEWEE 3: Predictive models can be used to anticipate consumer preferences and behaviours, allowing businesses to create sustainable branding strategies that align with their values and interests. Forecasting can also help businesses predict future trends in sustainability and adjust their branding strategies, accordingly, staying ahead of the curve and maintaining a competitive edge.

INTERVIEWER: That makes sense. Finally, can you explain how simulations and real-time experiences can be used to test and refine sustainable branding strategies before implementation?

INTERVIEWEE 3: Simulations can help businesses identify potential issues with sustainable branding strategies and refine them before investing time and money into implementing them. For example, virtual reality simulations can allow businesses to test out different advertising campaigns or product designs before launching them in the real world. Real-time experiences, such as social media engagement and customer feedback, can also provide valuable insights into the

effectiveness of sustainable branding strategies and enable businesses to make adjustments as needed.

THANKSGIVING

Researcher: Thank you for taking the time to meet with me today.

Market Research Manager: You're welcome. Happy to be here.

Researcher: I really appreciate your insights into the market research industry.

Market Research Manager: I'm glad to share my knowledge and experience with you.

Researcher: Your expertise has been very helpful for my research.

Market Research Manager: It's my pleasure to help in any way I can.

Researcher: Thank you again for your time and for sharing your valuable insights with me.

Market Research Manager: No problem at all. It was a pleasure discussing the industry with you.