

MASTERING BUSINESS ANALYTICS



Second Edition

Digital Analytics for Marketing

A. Karim Feroz, Gohar F. Khan, and Marshall Sponder



Digital Analytics for Marketing

This second edition of *Digital Analytics for Marketing* provides students with a comprehensive overview of the tools needed to measure digital activity and implement best practices when using data to inform marketing strategy. It is the first text of its kind to introduce students to analytics platforms from a practical marketing perspective.

Demonstrating how to integrate large amounts of data from web, digital, social, and search platforms, this helpful guide offers actionable insights into data analysis, explaining how to “connect the dots” and “humanize” information to make effective marketing decisions. The authors cover timely topics, such as social media, web analytics, marketing analytics challenges, and dashboards, helping students to make sense of business measurement challenges, extract insights, and take effective actions. The book’s experiential approach, combined with chapter objectives, summaries, and review questions, will engage readers, deepening their learning by helping them to think outside the box.

Filled with engaging, interactive exercises and interesting insights from industry experts, this book will appeal to undergraduate and postgraduate students of digital marketing, online marketing, and analytics.

Online support materials for this book include an instructor’s manual, test bank, and PowerPoint slides.

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Business Analytics

Marketing Analytics

Statistical Tools for Marketing and Consumer Behaviour
using SPSS

José Marcos Carvalho de Mesquita and Erik Kosteljik

Digital Analytics for Marketing, 2e

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Preface

We present this updated and expanded version of the previous book, *Digital Analytics for Marketing*. I am thankful to Marshall Sponder and Gohar F. Khan, the original authors of the first edition, for providing me this great opportunity to work with them on this book. I am privileged and honored to have them as my co-authors. Their work on the first edition laid the foundation for this book. In this second edition of the book, we build upon the previous work and new research to provide updates on digital marketing analytics.

As we know, digital technologies have penetrated every aspect of our lives in this rapidly evolving digital age. The emergence of new digital technologies such as artificial intelligence, big data analytics, blockchain, IoT, cloud and mobile, and social media analytics plays a fundamental role in enabling organizations to bring changes to their business models and core operations in radical ways or to create entire new business models and new ways for operations. This process is called digital transformation, which is challenging the traditional business models, and organizations have no choice but to go digital. This coupled with the fact that consumers these days are more informed creates additional challenges for organizations to understand their needs and rethink their value creation strategies.

Like any other sector, the world of marketing has undergone a remarkable transformation due to the influence of these technologies. The fast-changing environment enabled by digital technologies warrants transforming value creating processes and business models to meet evolving customer needs. Relying on traditional marketing methodologies to reach and engage customers is not an option in the modern digital age. Organizations understand that data-driven strategic insights hold the key to unlocking unparalleled opportunities for growth and success in the digital marketing arena. Since the release of the first edition, the landscape of digital marketing has evolved at an unprecedented pace, driven by technological advancements, changing consumer behaviors, and emerging trends. In this new edition, we aim to equip readers with the latest insights, strategies, and tools to navigate this ever-evolving digital ecosystem.

In this book, our goal is to understand the dynamics of digital marketing analytics and equip marketers, students and any other readers with practical and theoretical knowledge and skills necessary for succeeding with digital marketing in today's complex digital environment. Hence, we have created Digital RAA (Readiness, Analytics, Action) framework, that provides guidelines to organizations to utilize novel digital technologies for digitalizing marketing and creating value with it. This book is categorized into three main parts with chapters for each of the components of Digital RAA Framework. We take an integrated approach to studying the entire digital marketing analytics process. The book starts off with an introduction, talks about the objectives and selecting metrics for data collection, analysis, and visualization, digital marketing analytics tools, digital ecosystems, and creating digital value from digital analytics for marketing. With a strong emphasis on real-world examples and case studies, we illustrate how digital marketing analytics can be applied across various industries and marketing channels.

This book introduces new chapters that delve into cutting-edge topics and emerging trends. Specifically, Chapter 1 provides an overview of digital marketing analytics and introduces Digital RAA framework that binds all the remaining chapters. We have removed some chapters from the previous book as they were no longer

relevant in today's digital marketing environment. We have introduced new topics that are closely related to the industrial trends these days and are considered hot topics such as generative AI and Google analytics 4, etc. We explore the impact of artificial intelligence and machine learning on digital marketing analytics, discussing how these technologies can enhance personalization, automation, and predictive modeling. Furthermore, we delve into the realm of social media analytics, which is both science and art. For the science part, we discuss skilled data analysts, sophisticated tools and technologies; and data and for the art part of it, we discuss the important of interpreting and aligning analytics with business objectives and goals.

We extend our sincere gratitude to our readers, whose support and feedback have been invaluable in shaping this second edition. We have taken your suggestions to heart and strived to provide an even more comprehensive and insightful exploration of digital marketing analytics. We hope this book serves as a valuable tool on your journey to master the art and science of digital marketing analytics.

A. Karim Feroz
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Introduction to Digital Marketing and Analytics

CHAPTER OBJECTIVES

After reading this chapter, readers should understand the following:

- What is Marketing?
- Marketing Mix and Other Marketing Frameworks
- What is Digital Marketing?
- Digital Marketing Channels
- Digital Marketing Analytics and Digital RAA Framework

Marketing

Marketing is the process of identifying, anticipating, and satisfying customer needs and wants through the creation, promotion, and distribution of products and services. With the enormous growth of the Internet and digital technologies, marketing-related activities have skyrocketed. Consumers are exposed to an unprecedented number of advertisements on a daily basis through social media, TVs, emails, and online streaming, etc. Despite the takeover of digital media, traditional media such as newspapers, magazines, and other print publications still carry advertisements. The rise of digital media has rendered these kinds of marketing activities ineffective in terms of reaching a broader audience with lower costs. Marketing teams use various strategies, techniques, and online and offline communication channels to reach a target audience and persuade them to purchase products and/or services offered by business organizations.¹⁻³

Generally speaking, marketing covers a wide range of activities within an organization, such as market research, product development, branding, advertising, and sales. The ultimate goals of marketing are to drive sales, increase revenue, and expand market share for a business. Marketing is conducted in many ways. For example, doing consumer and market research to better understand the target audience and their needs and wants is a form of marketing. Similarly, developing a new product or service that addresses a specific customer need, carrying out campaigns for a strong brand image, or developing strategies to

differentiate brands from competitors are examples of marketing. Other marketing examples include

- Organizing and running advertising campaigns through social media or offline events to increase brand awareness
- Utilizing public relations and mass media to manage and improve reputation and brand image
- Using digital marketing techniques such as analytics, content marketing, search engine optimization (SEO), or email marketing to reach customers worldwide online
- Using promotions, public relations, influencer events, and other tactics for increasing brand awareness and attracting new audience

The operations of business organizations and enterprises can be divided into two main pillars, namely core functions and support functions. Core business functions are a set of internal and external activities of an organization that are collectively utilized for the production of final goods and/or services. Companies usually categorize their core business functions into four departments: inbound and outbound operations, marketing and sales, human resources, and finance. This may differ across different companies depending on their business models, operations, and corporate strategy. Marketing is one of the most important core business functions of an organization in terms of efficient resource allocation to advertisement campaigns and prioritizing promotions related decision-making.^{4, 5} Successful marketing activities have multiple advantages for organizations for gaining visibility, improving brand image, and expanding market share. Support business functions, on the other hand, are set of activities aimed at backing the core functions. Customer service, R&D, communications, PR, IT, and quality management are some of the examples of support functions. The two pillars come together in a perfect union to create and deliver value for customers by meeting their needs and wants.

Marketing is all about putting the right products and/or services at the right place in the right time at the right price! Companies undertake marketing activities to expand the reach of their final goods and services to the end users. Marketing activities mainly include selling, promotions, advertising, and mass media campaigns, etc. However, marketing activities can come in other different forms and shapes. For instance, warranty and return policy, packaging, attending trade shows and events, customer relations, discounts, and brand building, etc.

Figure 1.1 outlines all the general functions of marketing. All of them constitute the traditional marketing mix or 4Ps of marketing, which refers to four broad levels of marketing decision, that is, product, price, promotion, and place (4Ps framework), which has gone through substantial modifications through years of scholarly work in the field. In summary, marketing is a multifaceted activity which involves many departments in an organization where various different techniques and channels are used to promote and sell products and services to the target audience. We define and explain various marketing concepts in this chapter (see Table 1.3).

Marketing Frameworks

Marketing mix or 4Ps of marketing is a widely accepted traditional conceptual framework for marketing. It was as originally proposed by Jerome McCarthy in

Market Information and Research	<ul style="list-style-type: none"> • Gathering and analyzing information about the demands, needs and wants of consumers • Analyzing competition, decision-making for successful marketing of products and service
Product Design, Development, and Management	<ul style="list-style-type: none"> • Developing and improving a product or a product to create and capture consumer value • Product life cycle management
Marketing Information Management	<ul style="list-style-type: none"> • Gathering, storing and analyzing all the information involving the consumers, the product, the competitors, and the market itself • Helps with making sound business decisions across an organization
Costing and Financing	<ul style="list-style-type: none"> • Involves decisions of charging consumers for products and services and allocating budgets for marketing campaigns • Generally involves multiple departments in an organization
Customer Support and Services	<ul style="list-style-type: none"> • Includes sales and after-sales services • Highly focused on building long-term relationships with the consumers

Figure 1.1 General Functions of Marketing

Source: A. Karim Feroz

the 1960s. Marketing mix can be seen as a way of translating marketing *planning* into *practice*. Over the years, marketing mix has transitioned from 4Ps through modifications into 7Ps (three additions: people, process, physical evidence), and 4Cs, etc. In Table 1.1, we provided definitions and explanations of each of 4Ps and 4Cs with key relevant activities.

Digital Marketing

Information and communication technologies (ICT) offer new ways of connecting with consumers and carrying out business activities. Digital technologies have fundamentally altered the way marketing activities are carried out and value is created for customers. With the emergence of digital technologies, organizations have transformed the way they connect with their customers and promote their products and services. For example, companies are now able to connect with customers from across the globe in real time, which wouldn't have been possible without the growth and penetration of Internet and ICTs in business. There is no to physically visit a store to purchase something. It can be entirely done online. From purchase to delivery and post-purchase decisions, everything has done online. Everything is literally just a few clicks or touches (in case of smart phones, tablets) away! This use of digital communication channels and other technologies such as digital analytics, social media and analytics, email, and websites for marketing goods and services is called digital marketing.^{6, 7}

Here are some examples of digital marketing.

- **Social media marketing:** Social media platforms are powerful online tools for the promotion of products and services. Organizations can reach a diverse audience through these channels. Examples of social media marketing includes

Table 1.1 Marketing Mix Framework

4Ps/4Cs	Definitions/ Explanations	Key Activities	Sources
Product/ Customer	Customers are the end users of products and services. Companies should make wise investment decisions regarding product attributes and their quality that the customers will be willing to pay for. If customers don't see the value in the final goods or services, they will not be willing to pay for them.	<ul style="list-style-type: none"> – Product development – Product design – Branding – Packaging – Services 	8, 9
Price/ Cost	This marketing mix refers to the price structure and level. Price constitutes the total cost of delivering final products and services.	<ul style="list-style-type: none"> – Pricing strategies – Costs and breaking even – Employing various pricing tactics – Discounts, etc. 	10, 11
Place/ Convenience	This includes all the distribution efforts aimed at ensuring a smooth delivery of products to the consumers. Digital technologies (e.g., the Internet) have greatly impacted this mix in terms of shortening the distance between the final goods and consumers.	<ul style="list-style-type: none"> – Channel identifications – Location assessments – Market coverage – Opening franchises – Delivery and distribution strategies – Warehousing 	12, 13
Promotion/ Communication	This mix deals with investment in making the product visible to the consumers. Companies invest money in advertising, publicity, communications to expand their reach through various promotional mix strategies.	<ul style="list-style-type: none"> – Public relations – Advertising – Communication strategies – Identifying communication channels – Direct marketing 	14, 15

creating a Facebook ad campaign to promote a new product launch, making and uploading products or services-related videos to YouTube, and running a Twitter page, etc.

- **Search engine optimization (SEO):** Search engines are important digital channels that can help expand an organization's reach. Almost everyone relies on Google to help them find something they need. This provides a great opportunity for customers to find you. But you have to ensure that you are easy to find. Organizations can optimize their websites for specific keywords that can result in ranking them higher in search engine results pages. This enhances the ability of organizations to reach broader audience.
- **Email marketing:** Email is one of fastest way to reach customers! Emails serve as the direct link between you and your potential customers. Sending promotional emails to a list of subscribers to promote a product or service can result in gaining visibility.
- **Content marketing:** Content marketing has gained popularity with the growth of social media and the Internet. One way to connect with the customers is creating and distributing valuable, relevant, and consistent content. This can help in attracting and engaging an audience, with the goal of driving profitable customer action.
- **Influencer marketing:** Partnership with individuals who have a large following on social media platforms for promotions and brand awareness can be expensive financially but can definitely pay off in expanding audience base.
- **Affiliate marketing:** Affiliation and partnering has become easier with digital marketing. It is a mutually beneficial relationship that businesses can capitalize on to promote their companies.
- **PPC (pay per click) marketing:** In this type of digital marketing, companies can pay to have a website's link appear at the top of search engine results pages or on other websites through programmatic advertising.

Lasted Digital Technologies

Digital marketing heavily relies on digital technologies and digital communication channels for the promotion of goods and services. In fact, digital marketing is all about the effective use of digital channels to promote a product or service.^{16, 17} It allows for targeted and measurable campaigns, with the ability to track the success of various strategies in real time. Research has shown that digital marketing can be highly effective in reaching and engaging with consumers and can lead to increase in sales for businesses and that it is more effective than traditional marketing methods in terms of cost and ROI.^{18, 19} However, there are also challenges to digital marketing, such as the need for constantly evolving strategies to stay ahead of the competition and the potential for oversaturation in certain online channels. Businesses must stay up-to-date on the latest digital marketing trends and technologies to remain competitive. Overall, digital marketing has become an essential tool for businesses looking to reach and engage with their target audience, but it's important to stay up-to-date on the latest trends and technologies to be effective.^{20, 21}

The digitalization of organizational practices and operations and the proliferation of digital technologies in industries and markets have created a number of previously unavailable ways to conduct marketing activities. With the help of digital technologies such as social media, mobile devices and applications, the Internet and other search

engines, email, desktop computers and tablets, companies are now able to reach large swaths of the population.^{6, 17} Today's consumers are more knowledgeable than ever and have easy access to information to make informed purchase and post-purchase decisions. Digital marketing considers the data-driven nature of consumers and takes personalized approaches to individual marketing. Recent developments in artificial intelligence and machine learning have further narrowed down the scope of personalized digital and, as a result, organizations greatly benefit from targeted individual marketing campaigns. For example, if you search for a particular product or services on Google, then you will likely get ads on similar products on your Facebook or YouTube account.

"I was recently looking to buy a car here in the United States. I followed some car dealership pages and looked at the Facebook pages of local used cars shops in my area. And guess what? Now, I keep getting these 'recommended' car sale posts on my feed. The AI knows that I am looking for a vehicle" (Personal example from A. Karim Feroz).

Digital Marketing Frameworks

There are several frameworks available for digital marketing analytics that can help businesses track and measure the effectiveness of their digital marketing efforts. Below we discuss a few examples of the frameworks available for digital marketing analytics. Each framework has its own unique focus and can be used in different ways to help businesses track and measure the effectiveness of their digital marketing efforts.

1. Digital RAA Framework

In this book, we introduce digital RAA (stands for digital readiness, digital analytics, and digital action) framework that provides guidelines to organizations to utilize novel digital technologies for digitalizing marketing and creating value with it.

2. The AIDA Framework

AIDA stands for attention, interest, desire, and action. This framework helps businesses to understand how to create effective marketing campaigns that capture attention, generate interest, create desire, and drive action.^{22, 23}

3. The SMART Framework

SMART stands for specific, measurable, achievable, relevant, and time-bound. This framework can help businesses to set clear and measurable goals for their marketing campaigns.^{24, 25}

4. The PESTLE Framework

PESTLE stands for political, economic, social, technological, legal, and environmental. This framework helps businesses to understand the external factors that can impact their marketing efforts.

5. The RACE Framework

RACE stands for reach, act, convert, and engage. It's a digital marketing framework that helps businesses to plan, manage, and optimize their online activities to reach their target audience, act on their insights, convert visitors into customers, and engage with their customers to drive repeat business.

6. The Funnel Framework

This framework provides a visual representation of how customers move through different stages of the sales process, from awareness to purchase. This framework helps businesses understand how to optimize different stages of the funnel to improve conversion rates.

Digital Marketing Communication Channels

Digital marketing is possible because of the invention of digital communication channels. With the advent of social media and web-based technologies, marketing communication has become easier, less expensive (as compared to print media), and efficient. Digital marketers receive valuable insights from these channels because of the time that modern consumer spent and the data they share on social media and other online platforms. The followings are some of the digital communication channels.

1. Social Media Communication Channels

Social media has become a very popular communication channel for companies to stay connected with their clients. Particularly, over the past decade, the emergence of various kinds of social media platforms like Facebook, Twitter, Instagram, and YouTube has provided unprecedented opportunities for organizations to open new digital communication channels and engage in marketing. Using modern social media platforms for digital marketing has many benefits. Most modern social media platforms have built-in engagement and analytics metrics for analyzing data, which is very useful and valuable in terms of understanding the customers. There are many paid ads such as google ads and Facebook ads that provided targeted and personalized marketing services on social media to promote the business. Staying connected with social media is not only a great way to build and improve relationships with customers but also to attract new clients and enhance brand image. Nonetheless, organizations should have specific communication and content development strategies in order to successfully engage with their perspective clients. Such strategies should cover the scope, scale, and frequency of the materials uploaded to the social media platforms.

2. Website Communication Channels

A website is very powerful communication channel as it is usually the primary source online that represents the brand of an organization. Promotion of this channel is imperative to get more traffic on the website, which can lead to the retention of

existing customers and the attraction new ones. Companies should have sound web development strategies in place in order to attract and retain customers. The strategies should have specific plans to ensure that website channels are user-friendly, fast, accurate, mobile friendly, easy to navigate and have simple hierarchal structures. Utilizing more than one channels simultaneously can help companies more audience and attract more customers. For instance, business social media can be used to promote website channels and vice versa by linking one to another.

3. Mobile Communication Channels

Mobile technologies have come a long way since their inception. Smartphones and tablets provide an easy access to information online and enable quick communication among various parties. Companies rely on mobile communication channels to carry out digital marketing to reach specific audience through SMS, MMS, social media, mobile applications, and more. Digital marketing through mobile technologies offers marketers direct access to their perspective clients. Through personalized content and location-based marketing techniques organizations have the opportunity to create highly individualized ads on mobile devices to promote products and services. For instance, many companies rely on location-based marketing techniques to target potential customers who are within a few miles/ close proximity of their business.²⁶ A unique advantage of mobile channels is that audiences can be reached anytime, anywhere across the globe. Furthermore, mobile communication channel paves way for organizations to utilize other communication channels through it, for example, social media, apps push notifications, and text messaging, etc.

4. Email Communication Channels

Email has revolutionized personalized digital marketing. This channel comes at a very low cost for companies and can provide them with instant access to their clients. Email communications enable organizations to not only engage in digital marketing and advertising but can also be used as a platform to connect with clients for support and after-sales services. This channel effectively serves as a bridge and directly brings companies and customers closer. We have all experienced using this channel to communicate with organizations. It enables a two-way communication and each party can greatly benefit from highly personal interactions. With the amount of information out there and a deluge of emails being sent out by online marketers, potential consumers may be overloaded and never get a chance to open marketed emails. Therefore, it is imperative that companies develop a sound and effective email communication strategy that addresses how to avoid being spammed by potential customers.

5. Instant Messaging and Live Chat Communication Channels

Developments in information and communication technologies have created more innovative ways to engage in marketing campaigns. Instant messaging is a fast way

to communicate. Many organizations nowadays employ chatbots and other live chat application to shorten the distance with their customers and provide faster and more efficient services and support. Customers often want fast access to services and technical support. In this regard, these communication channels can become essential tools and elevate the quality of customer experiences.

6. AI-based “Human-Like” Marketing

We have all heard of the generative AI-based ChatGPT and other human-like chats and instant messaging apps. Given the rise of these applications, there are enormous implications for industries, businesses, societies, and governments around the globe, which will accelerate as time marches on. Like every other discipline and field, marketing is also going to be deeply impacted by AI.^{27, 28} AI-based marketing practices offer exciting opportunities for businesses to explore new arenas but also carry risk at the same time. AI tools for marketing rely on machine learning algorithms to assist marketers in various aspects of their work, such as personalized recommendations, content generation, and automation of routine activities, etc.

Digital Marketing Advantages

Unlike the traditional marketing, digital marketing is more efficient in terms of engaging, communicating, and interacting with customers. Digital marketing communication channels offer faster and cheaper ways of connecting with customers regardless of geographic distance and different time zones. Digital marketing can bring many benefits for organizations and can be leveraged to achieve business objectives. Table 1.2 outlines the advantages and objectives of digital marketing.

Marketing Analytics

Marketing analytics is a subdomain of business analytics that deals with extraction, collection, management, and analysis of huge of data to support insightful marketing-related decision.²⁹ The building block of marketing analytics is data, which is used to evaluate the effectiveness and success of marketing activities. Marketing analytics take organizations further into consumers' minds and helps them gain valuable insights from data to make more effective marketing strategies. Studies have shown that marketing analytics have a positive impact on marketing decision-making and product development management, which in turn impact the long-term competitive advantage, among other things (ibid). Tools and technologies are available in market, which help businesses access a wide array of marketing data to measure various marketing activities. Amazon Web Services (AWS), for example, allows businesses to acquire millions of usage behavior data points, identify latent demand through pattern spotting, and match real-time demands effectively. To design and assess various marketing initiatives and aid marketing decisions, marketing analytics mostly employ structure data, such as customer demographics data, transaction data, and sales data.

Table 1.2 Objectives and Advantages of Digital Marketing

Objective and Advantages	Examples/Explanations
Expanding market share	Digital marketing can help companies expand their market share by attracting more customers through online promotion campaigns. In today's highly connected world, consumers have access to unlimited amount of information. Consumers spend a lot of time online, which makes them available to be targeted through online marketing. Companies can always develop individual strategies to improve customers' online journeys and make them more memorable and gain their loyalty. Many digital tools can be employed to know who the customers are automate and track digital marketing activities.
Brand building and awareness	Brand awareness is very important for firm's any growth as it represents a business's prowess to stand out in the crowd. Digital marketing is a great way for organizations to increase brand awareness. The availability of a diverse audience online provides excellent opportunities for companies to portray themselves uniquely, develop different tones across different channels, and follow a strategy of consistent branding.
Improving communication	The competitiveness of markets and technologically advanced businesses warrant that the flow of communication in any direction is seamless. Improved communication is key to retaining customers, delivering the best services, building relationships with various stakeholder and engaging in other corporate activities. Digital marketing tools, if utilized effectively, can make communication across all channels.
Streamlining customer experiences	Digital marketing can increase the quality of customers' online experiences by reducing the wait times of service delivery by providing all the essential information about products and services to aid in buying decision and by offering flexible channel options.
Lowering costs	The utilization of multiple digital marketing channels makes communication more effective and the delivery of services more efficient, which can help organizations to lower costs. In addition to that, companies can benefit from automated online chatbots to replace expensive human operators. The key to success is to balance convenience with lower costs.
Enhancing global and local reach	Many big and small corporations these days operate beyond their local boundaries. Digital marketing has made the beyond reach customers reachable by enabling real-time communication across online channels. Companies can now easily promote their goods and services and target potential customers whenever and wherever.

Source: Authors

Digital Marketing Analytics (DMA)

Digital marketing analytics is a subdomain within marketing analytics, and it is defined as the science and art of extracting, management, and analyzing of vast amount of semi-structural and unstructured digital data (such as text, images, and network data) to enable informed digital marketing decision. DMA is mostly focused on extracting, management, and analyzing of digital data the comes from social media platforms such as Facebook, Twitter, and search engines. The goal is to translate all the consumer behavior data into actionable business insights on which organization will capitalize to create and capture value.

Table 1.3 A Summary of Definitions of Various Marketing-Related Terms Discussed in This Chapter

Concept	Definition	Source
Marketing	Putting the right products and services in the right place in the right time at the right price.	11, 14
Digital marketing	Digital marketing is the application of digital media, data, and technology to achieve marketing objectives.	29
	Digital marketing is a set of integrated techniques, technologies, and information that enables marketing to create new products and services; enter new markets; improve the processes needed to engage in a dynamic conversation with people who are influencers and buyers; and ultimately target, acquire, and retain customers.	30
	An adaptive, technology-enabled process by which firms collaborate with customers and partners to jointly create, communicate, deliver, and sustain value for all stakeholders.	31
Marketing analytics	Marketing analytics, a subdomain of business analytics, refers to the collection, management, and analysis of data to extract useful insights to support marketing decision-making.	32
Digital marketing analytics	The science and art of extracting, management, and analyzing of vast amount of structural, semi-structural, and unstructured digital data (such as text, images, and network data) to enable informed digital marketing decision.	This book

Source: Authors

Digital Marketing Analytics Capabilities

DMA capabilities are necessary for organizations to successfully translate raw data into useful insights for value chain processes. In a study, Shahriar Akter et al. (2022) identified marketing analytics capabilities of cloud sharing platforms.³³ DMA capabilities can enable organizations to engage in better and more focused digital marketing by driving thought leadership and generating leads for potential market expansion.

Digital RAA Framework

The explosive growth of modern digital technologies has enabled average consumers to become smarter, more informative, and choosier when it comes to buying decisions. These days, a typical customer goes through several loops, steps, information, and channels (both online and offline) before making the actual purchase.^{34, 35} Making a purchase is the first stage of entire consumer journey that includes post-purchase cognitive and emotional feelings experienced by the customers. These feelings and activities spearhead consumers' decisions to evaluate, buy, enjoy, advocate, and bond with the products and services. Digital technologies have impacted the activities and organizational processes associated with buying decisions and consumer experiences.

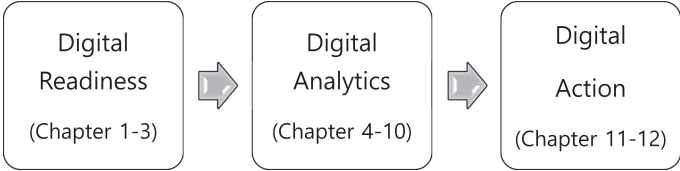


Figure 1.2 This Book's Structure in Relation to Digital RAA Framework
 Source: Authors

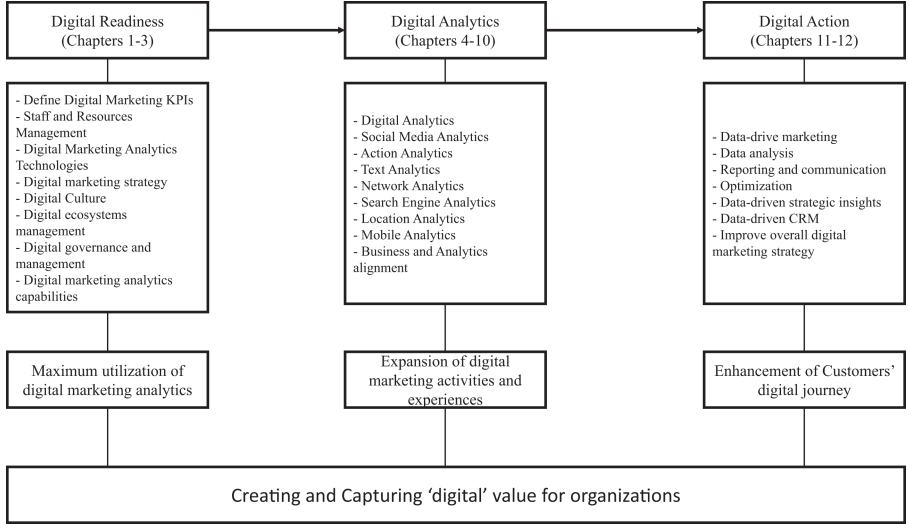


Figure 1.3 Digital RAA Framework for Digital Marketing Analytics
 Source: Authors

Hence, organizations must employ digital marketing in every stage of the consumers' journey to create and capture value. Taking the importance of digital technologies, we have created, Digital RAA (readiness, analytics, action) framework that provides guidelines to organizations to utilize novel digital technologies for digitalizing marketing and creating value with it. This book can be divided into three main parts as shown in Figure 1.2 with chapters for each of the component of Digital RAA Framework as shown next:

Digital RAA framework, shown in Figure 1.3, has been developed based on theories and concepts of marketing and digital analytics to help manage and improve results from digital marketing. The framework allows researchers and marketers to adopt a customer-centric perspective and map the multiple ways in which digital marketing affects consumers and provides a strong and diverse conceptual framework for understanding digital marketing analytics. The discussions in this book are centered around this framework, and each chapter will cover various analytics tools and strategies to conceptualize the different types of digital data generated that can potentially be used to make informed marketing decision. The framework conceptualizes digital marketing as a four staged process, where each stage consists of several activities that leads to an outcome culminating in the final outcome for organizations.

Stages of Digital RAA Framework

1. Digital Readiness

Outcome: *Maximize the utilization of digital marketing analytics*

Digital readiness consists of all the digital activities involved in preparing organizations to embark on digitalizing marketing practices. Digital readiness equips organizations with capabilities and skills necessary for measuring and expanding the audience volume by utilizing multiple digital channels. The key concepts regarding this stage covered in this book are as follows:

- Define digital marketing KPIs
- Staff and resources management
- Digital marketing analytics technologies
- Digital marketing strategy
- Digital culture
- Digital ecosystems management
- Digital governance and management
- Digital marketing analytics capabilities

2. Digital Analytics

Outcome: *Expansion of digital marketing activities and experiences*

This stage involves collecting, storing, analyzing, and managing data from all digital marketing channels, such as social media, email, and website analytics. This data should include metrics, such as website traffic, engagement, conversion rates, and customer demographics. In this book, we explore digital analytics for marketing in great detail. Key topics in this stage that will be covered in this book are as follows:

- Digital analytics
- Social media analytics

- Action analytics
- Text analytics
- Network analytics
- Search engine analytics
- Location analytics
- Mobile analytics
- Business and analytics alignment

Digital Action

Outcome: *Enhancing of consumers' digital journey*

In the final step, organizations should act on the insights gained from the data analysis. This includes creating and implementing a plan to optimize and improve marketing efforts. The action plan should include specific, measurable goals and objectives, and should be regularly monitored and evaluated. The ultimate goal of organizations should be to digitalize every aspect of marketing in order to create and capture digital value. Emerging digital technologies such as artificial intelligence, big data and analytics, blockchain, Internet of Things (IoT), cloud, mobile and social media technologies are changing the fundamental structures of the supply chain, business models, and value creation processes. These technologies enable digital transformation and their influence and reach are expanding exponentially. Organizations should utilize them in digital marketing practices and take advantage of the exciting new ways of creating value for customers. Digital action requires the following activities:

- Data-driven marketing
- Data analysis
- Reporting and communication
- Optimization
- Data-driven strategic insights
- Data-driven CRM
- Improve overall digital marketing strategy

Review Questions

1. What is marketing and digital marketing?
2. What are digital marketing channels?
3. What is digital marketing analytics?
4. What is RAA Framework?

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Digital Marketing KPIs, Strategy, Ecosystems, Governance, and More

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