

# Understanding Digital Marketing

<sup>1</sup>Matthew N. O. Sadiku, <sup>2</sup>Sarhan M. Musa, and <sup>3</sup>Osama M. Musa,

<sup>1,2</sup>Roy G. Perry College of Engineering, Prairie View A&M University, Prairie View, TX 77446

<sup>3</sup>Ashland Inc., Bridgewater, NJ 08807

**Abstract:** Digital marketing is a general term used for referring to all online marketing activities. It creates the potential for direct selling to the customers and allows people to consume digital content on a daily basis. It allows marketers to see accurate results in real time because they can see the exact number of people who have viewed their website. This paper provides a brief introduction to digital marketing.

**Keywords:** Digital Marketing, Electronic Marketing, Internet Marketing, Online Marketing

## I. INTRODUCTION

“Marketing is at the core of all business activities. Without marketing, organizations cannot sell and without sales there is no revenue and without revenue people cannot run business” [1]. The global economy is being driven by integration of world markets and the spectacular growth of information and communication technologies (ICTs). With the creasing popularity of Internet, recent development of mobile technology, and the growing international business environment, the conventional marketing is gradually moving to digital marketing. Marketing today is more complex and data-driven. Today, customers know more about you and your competitors’ products than ever before.

Digital marketing (or Internet marketing) refers to marketing of products or services using digital technologies, mainly the Internet and mobile phones. It allows sellers and buyers to conduct transactions electronically through communications networks such as the Internet, intranet, and extranet. As more and more customers use digital devices instead of visiting physical stores, digital marketing become more prevalent. Digital markets are more efficient than traditional or offline markets with respect to price levels, menu costs, and price elasticity. They can result in lowered service costs, advertising costs, promotion costs, and processing costs [2].

Digital marketing (DM) is also referred to as electronic or online marketing and includes online advertising, which delivers marketing messages to customers. In this electronic marketplace, thousands of suppliers would compete against one another to provide products and services to customers. Digital marketing includes social marketing, word ads, banner ads, video advertisement, etc. It has become an attractive alternative means for all the companies to market their products and services. It is common for consumers to post feedback online through social media sources and websites on their experience and satisfaction with a product. They can use many digital mediums, such as Facebook, YouTube, Forums, etc.

## II. DM CHANNELS

Digital marketing is facilitated by multiple channels which include email marking, display advertising, social media marketing, mobile marketing, game advertising, and search engine marketing (SEM). These channels have the ability to simultaneously create, promote, and deliver value from producers to consumers through digital networks. Each digital

marketing channel domain requires a unique skill set, that when combined creates a synergy not possible in conventional marketing channels [3]. A digital marketing framework is shown in Figure 1 [4].

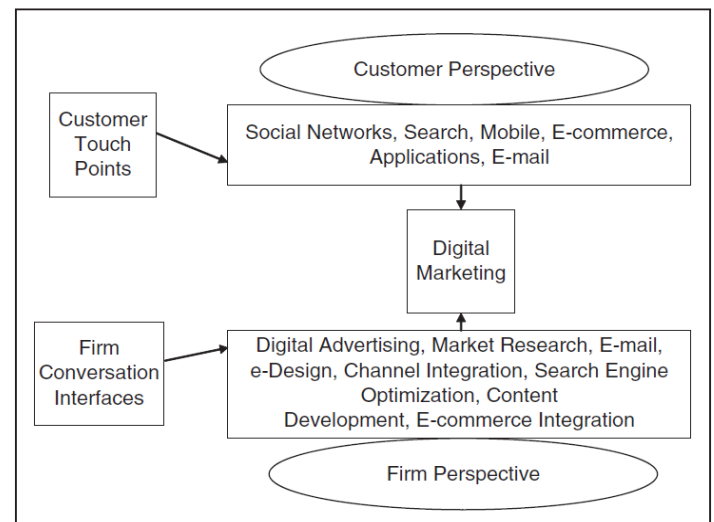


Figure 1: Digital marketing framework [4].

## III. BENEFITS AND CHALLENGES

One benefit of digital marketing is that it places no limitations on the geographical reach it can have. This allows companies to expand their customer reach to other countries. Second, it provides service for customers 24/7 so that customers can shop any time. Third, it provides tension-free purchase, invariable choices, large discounts to buy online, cheaper than brick-and mortar stores.

A disadvantage of digital marketing is that a lot of companies are using the same strategies to offer the same kinds of goods and services. Another disadvantage is that digital marketing cannot be used for every product. For example, industrial goods and pharmaceutical products cannot be marketed through digital channels. Security, trust, and online fraud are posing serious challenge to the adoption of digital markets. Security is a technology issue which has been addressed by various technology developments, such as cryptography, firewalls, and digital certificates. All payments in digital markets should be carried out in a secure manner, adopting technologies that can guarantee the safe authentication of the user and to reduce the risk of fraud. Fraud can be attributed to lack of interpersonal interactions in digital markets. Trust (particularly the cross-border trust services) is a critical factor for the success of digital markets [5]. One way to enhance trust is through the establishment of feedback systems that allows customers to provide information on their online experience. Feedback systems are available in many online marketplaces, such as ebay.com, Amazon.com, and Yahoo Auctions [6]. Proper social, legal, and economic mechanisms are necessary to minimize transaction risks and to encourage consumer trust in online transactions.

In spite the impressive ICT (being the primary enabler of digital marketing) growth in recent years, the digital divide continues to separate the information-poor from the information-rich. In North America about half the population use the Internet, but in South Asia and sub-Saharan Africa just over half of 1% do so [7]. Therefore, digital marketing to many is still an uncharted territory.

**Osama M. Musa** is currently Vice President and Chief Technology Officer for Ashland Inc. Dr. Musa also serves as a member of the Advisory Board at Manhattan College's Department of Electrical and Computer Engineering as well as a member of the Board of Trustees at Chemists' Club of NYC. Additionally, he sits on the Advisory Board of the *International Journal of Humanitarian Technology* (IJHT).

### CONCLUSION

Digital marketing is still a growing field across the world and may change significantly in the coming years. Retailers continue to focus on their online presence, including online shops that operate alongside existing conventional stores, while consumers increasingly use the Internet to look up product information, compare prices, and look for deals.

Today's children will be the product designers, customer service providers, and business managers of tomorrow. They need preparation on digital marketing. A radical change in the marketing curriculum consistent with the emerging student and business needs of the 21st century is important. Although it may be difficult to justify offering digital marketing as an academic area by itself, it can be integrated with the traditional marketing curriculum. Some marketing universities have more extensive digital marketing offerings at the MBA level [4]. Additional information on digital markets is available in several books in Amazon.com.

### References

- [1] P. J. M. A. Malar, "Innovative digital marketing trends 2016," *Proceedings of International Conference on Electrical, Electronics, and Optimization Techniques*, 2016, pp. 4882-4888.
- [2] "Digital marketing." Wikipedia, the free encyclopedia [https://en.wikipedia.org/wiki/Digital\\_marketing](https://en.wikipedia.org/wiki/Digital_marketing)
- [3] T. M. Key, "Domains of digital marketing channels in the sharing economy," *Journal of Marketing Channels*, vol. 24, no.1-2, 2017, pp. 27-38.
- [4] C. Wymbs, "Digital Marketing: The Time for a New 'Academic Major' Has Arrived," *Journal of Marketing Education*, vol. 33, no. 1, pp. 93-106.
- [5] H. Zhang, "Extralegal arbitration of trust in digital and quasi-digital markets: an intermediary-based approach," *Doctoral Dissertation*, The University of Texas at Austin, 2000.
- [6] M. Zhou, M. Dresner and, R. Windle, "Revisiting feedback systems: Trust building in digital markets," *Information & Management*, vol. 46, 2009, pp. 279-284.
- [7] C. A. Yartey, "Financial development, the structure of capital markets, and the global digital divide," *Information Economics and Policy*, vol. 20, 2008, pp. 208-227.

### AUTHORS

**Matthew N.O. Sadiku** is a professor in the Department of Electrical and Computer Engineering at Prairie View A&M University, Prairie View, Texas. He is the author of several books and papers. His areas of research interest include computational electromagnetics and computer networks. He is a fellow of IEEE.

**Sarhan M. Musa** is a professor in the Department of Engineering Technology at Prairie View A&M University, Texas. He has been the director of Prairie View Networking Academy, Texas, since 2004. He is an LTD Sprint and Boeing Welliver Fellow.