



STRUCTURE AND CONSTITUENTS OF DIGITAL MARKETING SYSTEMS

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Abstract

The article addresses the study of digital marketing as a marketing system, the definition of its key elements, feeds and outputs, as well as levels of structure. At the moment, digital marketing is mostly considered at the micro level, while it is functioning at the level of the entire economy, and the systemic interaction between digital marketing and other social subsystems are not well understood. The result of the study is the conceptualization of the digital marketing model as a marketing system and the allocation of three levels of digital marketing. This opens up prospects for a better understanding of the processes of economic development, factors of influence and means to manage.

STRUKTURA I SKŁADNIKI CYFROWYCH SYSTEMÓW MARKETINGOWYCH

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Słowa kluczowe: marketing, macromarketing, systemy marketingowe, gospodarka cyfrowa, marketing cyfrowy.

Abstrakt

Artykuł dotyczy badań nad marketingiem cyfrowym jako systemem marketingowym, definicji jego najważniejszych elementów, kanałów i wyników, a także poziomów struktury. Obecnie marketing cyfrowy jest rozpatrywany głównie na poziomie mikro, jego funkcjonowanie na poziomie całej gospodarki, a systemowa interakcja między marketingiem cyfrowym a innymi podsystemami społecznymi nie jest dobrze poznana. Rezultatem badania jest konceptualizacja modelu marketingu cyfrowego jako systemu marketingowego oraz przydzielenie trzech poziomów marketingu cyfrowego. Otwiera to perspektywy do lepszego zrozumienia procesów rozwoju gospodarczego, czynników wpływów i środków zarządzania.

Introduction

Development of digital media and technologies, resulting in so far in arising of industry 4.0 has introduced a revolution in many sectors and markets, disrupting physical value chains, altering consumer behaviour, communications channels and content, introducing digital products and services, enabling new ways to access value and consumption, to which marketing is continuing to adapt (Kotler *et al.*, 2017).

Marketing is traditionally seen as a foundation for the interaction of a firm with the buyers and consumers in a competitive economy. It outlines the tools of interaction, encompasses strategy and directs the organisation's mission and vision, goals and development. However, marketing also has a significant impact on society through economic, socio-cultural, technological, environmental and other subsystems, and, in turn, is defined by their influence. Thus, the relation between marketing and environmental macro-factors appears to be bilateral and systemic. To embrace that systemic nature of the interaction on the macrolevel, the concept of a marketing system was proposed, see (Alderson, 1964; Fisk, 1967; Mittelstaedt *et al.*, 2006; Layton, 2007). It is widely applied to explore, depict and analyse a variety of multilevel interactions as well as to link marketing to social development (Kadirov, 2011) and economic growth (Layton, 2009). The study of bilateral relationships between economic development and marketing systems as well as the systems themselves is defined and agreed by most scholars as the scope of macromarketing (Hunt, 1981).

Exploring relations between digital marketing, social development and economic growth requires a proper description of digital marketing as a system, defining its elements and the means of interaction between them. It also seems necessary to determine the extent to which digital marketing associates with the processes driving the digital economy. The objective of this article is to propose a framework for the description and understanding digital marketing as a system at the macrolevel.

Research methodology

The paper presents secondary research, aimed at the development of a conceptual framework for marketing systems emerging around digital media. The research employs the macro-systemic approach, based on General System Theory and Social Systems Theory. To meet the objective of the article, we first analyse the concept and structure of the digital economy and briefly describe its constituent elements. Then we discuss the overall impact of digital technology on changing and (or) disrupting economic processes. Next, we scrutinise the structure and theoretical foundations of marketing systems as a central concept to macromarketing. At the intersection of marketing systems and the digital economy, we will outline the overall structure of digital marketing as a macrosystem, and describe major elements and flows within it. Then we discuss the entire construct and outline some directions for further research.

The Digital economy and its Structure

Transformation of the environment and ways of value creation and delivery under the influence of digital technologies has led to the disruption of the traditional economic processes in various industries and sectors of the economy. This has changed the ways of interaction and purchasing behaviour, and has caused the development of new economic models based mainly or exclusively on the use of digitalization in creation, production and consumption. The notion of the digital economy embraces economic flows, caused by digitalization. The OECD defines the digital economy as an “amalgamation of several general-purpose technologies (GPTs) and the range of economic and social activities carried out by people over the Internet and related technologies. It encompasses the physical infrastructure that digital technologies are based on (broadband lines, routers), the devices that are used for access (computers, smartphones), the applications they power (Google, Salesforce) and the functionality they provide (IoT, data analytics, cloud computing)” (Dahlman *et al.*, 2016). It is operated primarily by online connections among people, businesses, devices, data, and processes. The technological basis for the development of the digital economy is the IT sector. It produces hardware, software, infrastructure for connectivity and technologically enables data exchange and the production of content based upon it. It also includes IT related consultancy and education. The impact of digital technologies on economic processes is operationalized by its application to value creation and delivery. There are sectors in which value creation emerged exclusively due to ICT development: digital services and platforms are among them. At the same time, a major impact of ICT can be traced to many other sectors, which existed long before the digital revolution. Such sectors (e-business, e-commerce, and precision agriculture) are the digitalised versions of traditional business, commerce, and agriculture.

Digital marketing is an obvious part of the digital economy, which determines its place, functions and connections. Its primary task is to ensure the value exchange process through customer choice and consumption. Due to virtualisation being a close associate of the expansion of digital, outsourcing and out staffing in production becomes widespread. Consequently, much more attention should be paid to the coordination of sometimes many partners in value creation. The digital economy is a network economy.

The Digital Marketing System

Digital marketing means the application of marketing in the digital economy. The popular understanding of digital marketing has tied it to the functioning of digital channels. For some time, the terms digital marketing, internet marketing, and email marketing have all been used as synonyms and easily interchanged. At the same time, the development of digital platforms and the creation of digital products with value *per se* clearly show that the use of digital technologies is significantly wider than the remaining crucial transfer of data. Digital marketing does not necessarily mean the Internet; it is determined by the use of digital technologies to engage with the market. E-books, SMS and messaging, video games, and mobile applications are just as relevant to digital marketing as online videos, social platforms, and emails. Digital marketing is involved in any interaction, both micro and macro, in which digital media is used to create and deliver value. Therefore, we consider the term digital marketing as being more proper. Chaffey and Ellis-Chadwick (2019, p. 9) simply define digital marketing as achieving marketing objectives through applying digital media, data and technology (Kannan & Li, 2017). The adoption of broader and more inclusive perspectives define digital marketing as “an adaptive, technology-enabled process by which firms collaborate with customers and partners to *jointly* create, communicate, deliver, and sustain value for all stakeholders”. From these definitions, it follows that the digital marketing provides for the presence of specific institutions and effects, including the indirect, arising from the multiple interactions of many participants in digital channels, which are inherent to marketing systems.

According to Layton (2007) “A marketing system is a network of individuals, groups, and/or entities linked directly or indirectly through sequential or shared participation in economic exchange that creates, assembles, transforms, and makes available assortments of products, both tangible and intangible, provided in response to customer demand”. Medeiros and Costa (2019) characterise the concept of a marketing system by six aspects:

a) marketing systems go beyond simple economic exchange, since there are social, behavioural, moral, legal and psychological factors other than economic ones in the context of exchange;

- b) marketing systems are directly linked to other systems;
- c) marketing systems contain other subsystems, so it is necessary to consider the levels of aggregation to determine its size and effectiveness;
- d) each marketing system has specific features that make it unique when compared to other systems;
- e) each system has a certain level and limit of effectiveness, which is determined considering all internal and external elements and circumstances. to which we attach the following;
- f) the marketing system is a dynamic entity and evolves over time.

The evolution of the marketing system over time is influenced by changes in socio-economic conditions just as one of its subsystems, and changes can be caused by endogenous factors. Every point from the list above is pertinent to a digital marketing system. One can easily trace numerous sequences from the constant use of digital media on consumption and wider human behaviour, as well as a much deeper influence on moral, legal and psychological factors; see for example (Bassiouni & Hackley, 2015). The universal application of digital media stands for linking with other systems and subsystems (pp. 2-3 from the list of features above), while at the same time there are specific features of each field of activity requiring the application of specific tools. For instance, the personalisation of marketing communication necessitates an extended application of email marketing and big data while conversation and greater engagement with a firm needs more accent to be put on social media platforms. Digital systems also evolve over time, which reflects both technological advancements, for instance the transition from Web 2.0 to semantic led Web 3.0 and higher, and societal developments, caused by behaviour patterns change due to the increased use of digital media in consumption and production.

The functioning of the digital marketing system is conditioned by the influence of other social subsystems and other marketing systems. Based on a process-based approach, digital marketing can be thought of as a process that has input and output, and where feedback exists. One the one hand, at the entrance to the digital marketing system there are value propositions and, on the other hand, there are customers, with needs and demands. The interaction between them is ensured by ICT, used in the IT sector, with hardware and software, capacities of storage and data transmission, engineering and the development of knowledge and skills. The activity of the system is ensured by acts of search, discussion, sharing, purchase and access. It is realised through marketing flows of ownership, possession, information, money, and risk (Fisk, 1967). The output of the system results in added value, the satisfaction of needs, for which access, quality and various assortment are crucial. This results in economic growth, social development and an increased quality of life.

The operation of the entire system occurs under conditions created by external factors, embodied by other societal (sub)systems and other marketing systems. The overall structure of the digital marketing system is presented in Figure 1.

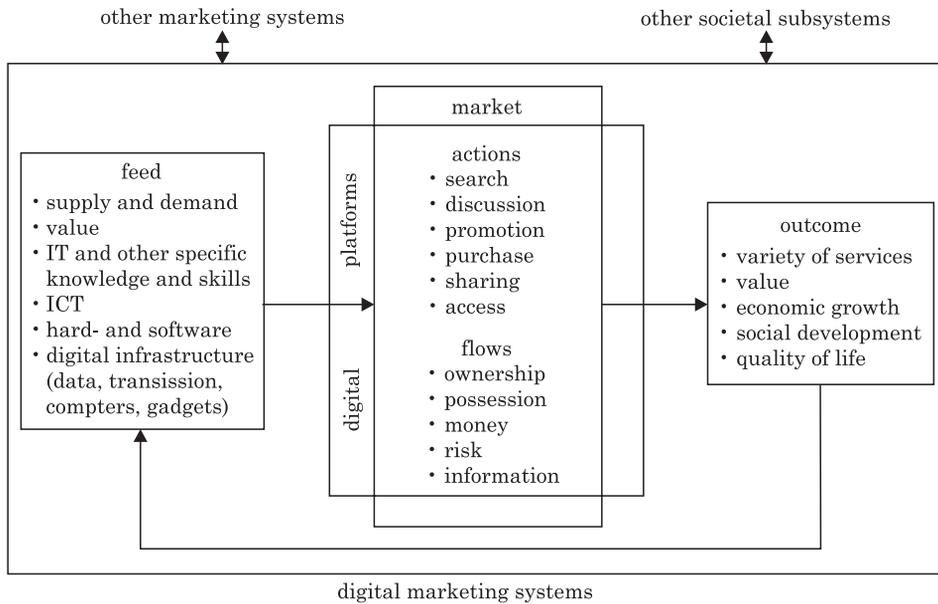


Fig. 1. Structure of the digital marketing system

Source: own elaboration on the basis of Medeiros and Costa (2019).

Digital marketing not only communicates value through digital channels, but is engaged in its creation and delivers via *co-creation*. Engagement with the customer in digital channels requires them to be actively involved in exchanges, taking a vital role in co-creating value. Such an engagement is critically dependent on the sovereign desire of a customer, which is influenced by many factors, in particular: a perceived need for the product; an assessment of its value; the envisaged situation of use and the position in which the customer is located in relation to the firm, other firms, other consumers and other people with whom it is connected with social relations. Marketing systems imply a benevolent nature in many connections, shaping the definite form and outcomes of any iteration (Mittelstaedt *et al.*, 2006). Changes in any of these elements can lead to a significant and sometimes rapid change in the position, intentions and desires of the customer, which is reflected in the purchasing intentions.

Using knowledge and skills to create products, consumers exchange a service for a service, *quid pro quo*. The service from the consumer-seller is to sell the product sought by another; the service from the consumer-buyer is to identify interest, without which contact between them would not have taken place. These types of exchanges are well described within the Service Dominant (S-D) logic developed by Vargo and Lusch (2004). This means that the service is first and the exchange of tangible assets is derived from the exchange of services, being conditioned by the latter. The product itself is essentially just a separate element

in the broader context of value exchanges. In this regard, the product should be regarded as nothing more than a value proposition, a service that provides the exchange of a certain form and extends the service to the economic system. Such a nature of exchange of values emphasizes their nature, very different from the traditional understanding. At the heart of value in a digital channel is service. As a rule, this exchange is not directly reciprocal: *X* supplies *Y*, but *Y* does not necessarily supply *X*, rather transferring the interaction to further agent *Z*. Ultimately, *X* also receives services, but specific to his (her) needs and at other times, as needed. The amount of this value is determined by the expectations of its usefulness and is changing, that is, the value-in-exchange.

In view of the above, the level of development of digital marketing should be determined first of all by the content, scope, and variety of services consumers can provide to each other. By assuming that the service is the primary product and the embodiment of operational resources, it is recognized that these resources are basically knowledge and skills, and it should be then recognized that the level of digital marketing development should be determined directly by the nature and the amount of them. These resources are then possessed by consumers themselves, and indirectly by the factors from which skills and knowledge depend on, or are accompanied with: the level and quality of life, which in turn affect the range and nature of communication in an individual community, society and social networks; the level of access to technology and infrastructure development, including access to the necessary hardware and software, which is an essential technical prerequisite for the creation and operation of exchanges. Furthermore, the content of customer service needs to be defined when the technology itself is in the essence of services provided by one consumer to another.

The depicted structure of the digital marketing system can be applied at all levels of the digital economy. The functioning process and flows in the market are accomplished through the numerous and diverse digital platforms that are the focus of digital marketing operations. Thus, one can see three levels of digital economy:

- the core IT sector;
- digital economy, meaning intensive application of digital technology and developing digital platforms and sharing the economy;
- digitalised economy, standing for extensive use of digital expansion onto various activities, not arisen from the digitalization itself.

At the heart of the system lays the activity of the IT sector that makes it possible to share value within and with all ICT consumers. The IT-level marketing process is aimed at generating and delivering innovation in shape, form and service to the industry itself and its users.

At the wider level of the digital economy, the creation of digital goods and services, the organization and provision of transactions and communications, the organization of consumers and the provision of access to value require certain mechanisms. These are mediated by technologies of interaction between users,

user groups, owners and developers. These mechanisms are known as digital platforms. They create and support certain forms of interaction, ensuring an organized and stable nature of the system. Examples of digital platforms include platforms and aggregators (eBay, OLX, Amazon), social networks (Facebook, Twitter), crowdfunding platforms, training space (Coursera), information sharing, storage platforms (Google Drive), and more. Alongside them, there are platforms of a different kind, designed for group interaction aimed at creating innovative products, such as a variety of creative spaces, and open source environments for creating software products. After all, for the digitalized economy, digital marketing is primarily about adapting to the new ways of interacting with digital media and boosting productivity and efficiency. The threefold structure of the digital economy defines the corresponding threefold structure of digital marketing. Thus, digital marketing appears as a multilevel concept (see Tab. 1).

Considering that digital marketing must provide both transactional and innovation needs, one of the main indicators of digital system performance is to support the diversity of value propositions in digital marketing and, accordingly, the diversity of digital platforms.

Table 1

Principal tasks of different levels of digital marketing

Levels of digital economy	Levels of digital marketing	Principal tasks
IT sector	IT marketing	creating and delivering value to ICT applicants
Digital economy	core digital marketing	creating, developing, and promoting digital platforms, transactional and innovative
Digitalized economy	digitalized marketing	adapting to new ways of interacting with digital media, communications, boosting productivity and efficiency

Source: own elaboration on the basis of Bukht and Heeks (2017).

Conclusions

The article develops a systemic view on marketing as a process that progresses within the marketing system – one of the central concepts of macromarketing. The breakthrough of digital innovation has led to the emergence of the digital economy. This paper uses the three-fold structure of the digital economy, which, depending on the extent and purpose of digital technology, outlines the levels of:

- IT sector;
- digital economy;
- digitalized economy.

The digital revolution is so widespread that digital marketing needs to be generalized at the level of the economy as a whole, considering macro perspectives. From this point of view, a process shaped model of a digital marketing system is proposed. The digital marketing system, analysed from the point of the customer journey path is placed under the S-D logic model. Its core is digital platforms, embodying actions and flows, which are specific for marketing in digital channels.

Departing from the tri-fold structure of the concept of the digital economy, this paper proposes a threefold structure of digital marketing, consisting, respectively, of:

- the marketing of the IT sector;
- core digital marketing;
- digitalized marketing.

This classification opens up conceptual room for a deeper study of the conditions of operation, the efficiency and the effectiveness of digital marketing, its connections with offline marketing, as well as its relationships with the development and growth of the economy as a whole. In this context, it is likely that IT marketing and digital marketing would largely contribute to the development of macroeconomic figures such as GDP, GNI, and employment, while the impact of core macromarketing should also be traced by measuring the level of diversity of digital platforms. Such an impact involves the creation and dissemination not only of media and technologies, but also highly specialised knowledge and skills among consumers directly, as well as the development of skills, processes and institutions that condition and facilitate consumer contact and communication with one another within the economic system and with other economic systems. Apparently, these skills include communication skills and emotional intelligence, as well as trust as one of the most important institutions (Hunt, 2012).

New digital technologies are emerging constantly and outline many research directions. As for their impact on marketing strategy elaboration, new forms of customer behaviour and changes in the customer journey path are developing. There are many tactical aspects of using specific digital enabled devices and technology, like the criteria of choosing digital platforms, the impact of wearables in decision making etc. There are also questions of how the development of digital technology influences economic growth through the development of marketing systems; to which extent digital marketing systems determine economic growth; if digital marketing is determined by the development of the digital economy or does it drive that development; and which is the mechanism of interaction between the digital economy and digital marketing. How could digital marketing system growth be regulated, programmed if ever, and institutionalised since advances in technologies make obsolete many traditional regulations of market and consumption? The need for more knowledge of digital marketing system growth and change is widely recognized.

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