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# Challenges and Subjects of Marketing Research in the Digital Age

Seunghee Lee\*, Jongho Kim\*\*, Yueshun Quan\*\*\*, Donjin Li\*\*\*\*

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## Abstract

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We explore marketing topics classification—internet marketing environment, internet marketing function, special internet marketing applications, internet marketing research, other topics in the digital age. This paper will introduce and discuss the changes that economic agents including firms and consumers will face in the digital marketing age. The digital revolution has shaken marketing to its core. The digital age provides the opportunity to reach vast new audiences with surgical precision.

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\* Seunghee Lee, Kumoh National Institute of Technology, Korea  
\*\* Jongho Kim, Chosun University, Korea  
\*\*\* Yueshun Quan, Kwangju Women's University, Korea  
\*\*\*\* Donjin Li, Nankai University, China

## I . INRRDUCTION

'Digital' is a technological concept by which continuous analogue signals are transformed into a combination of '0' and '1'. Digital technology has made it possible for analogue signals to be processed and transformed into varied forms, and to be copied and repeatedly used without modifying their original status. The digital Age is based on the invention and continuous development of digital technology. However, the digital economy refers not only to manufacturing and service industries based on such digital technology, but also to a society as a whole in which a new paradigm is emerging.

Before entering the digital marketing world, it's important to understand how it differs from the traditional marketing and what impact digital marketing has for traditional marketing. There are new concepts and new principles of marketing, which are fostered by the use of digital technology. By understanding the new global digital reality and focusing on the new rules of marketing, marketing professionals can begin to reclaim some of their lost ground and corporate executives can increase their likelihood of success in the turbulent, chaotic, changing global digital environment.

The purpose of this paper is to provide an overview of some of the emerging new

challenges and resulting subjects of marketing in a digital age.

## II . THE NEW MARKETING PARADIGM

The theory and practice of marketing are being fundamentally transformed by a series of interrelated forces that are reshaping the business environment. Among these changes are rapid advances in information technology, emerging new technologies (such as gene therapies, nanotechnology and materials), globalization, shifting industry boundaries, changing customer demands, major reengineering and reinvention by increasing numbers of firms, and increased complexity and uncertainty. Given these forces, many of the traditional marketing concepts, methods and practices are no longer relevant. A new marketing paradigm has to be developed.

### The emerging cyber consumer

Among the most significant changes in the business landscape are the emergence of "cyber consumers" and the cyber business to business world, the changing reality of an increasingly complex, dynamic and chaotic world, and the waves of entrepreneurship and innovation and their associated new business models.

Technology changes people. Digital technology is changing the way consumers relate to products and markets. It is not just our computers that are being reprogrammed; it is customers themselves. These emerging "cyber consumers" are like an alien race that have landed in the midst of our markets. They have different expectations and different relationships with companies from which they purchase products and services.

These cyber consumers expect to be able to customize everything ? from the products and services they buy, the information they seek to the price they are willing to pay. They expect to get what they want, when they want it, 24 hours a day seven days a week. Most importantly, many of these are no longer content to be passive recipients of marketing messages.

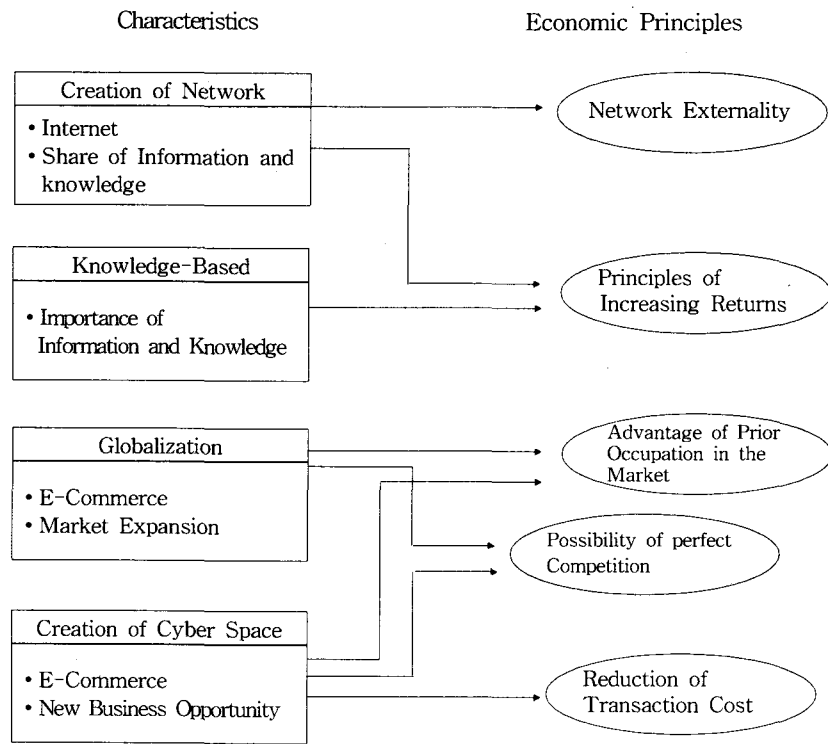
#### Characteristics and economic principles of the digital economy age

The characteristics and the economic principles of the digital age are summarized in Figure 1. The most important feature of the digital age is that it has the characteristics of a network economy,

particularly an information network economy. Information and knowledge are shared by this network based on the internet, so that they may be utilized more efficiently to increase economic productivity. The second characteristic is that the digital age is intimately related to the 'Knowledge-Based' economy, where the accumulation, spread and use of knowledge and information, all new factors of production, are important.

The third characteristic is that the market is rapidly expanding, or globalizing as the digital economy increases in popularity. In a globalized market, firms would be more important than governments as the importance of national boundaries would be in decline. The final characteristic is the creation of 'cyber space'. Cyber space, where all economic agents would behave without facing each other, and where e-commerce would comprise the majority of economic behavior, has emerged following the introduction of the internet and is currently expanding more rapidly than initially expected.

Figure 1 Characteristics and Economic Principles of the Digital Economy Age



While the Internet is not the only marketing channel a business should examine, it definitely should be part of the plan. Business in virtually every sector of the economy are beginning to use the Internet to cut the cost purchasing, manage supplier relationships, streamline logistics and inventory, plan production, and reach new and existing customers more effectively.

Traditional marketing Vs digital marketing

Firms operating in the cyber market will be faced with more severe competition than in the physical market. For firms to adapt to new environments and survive, they must rebuild a concept of marketing in

favor of e-commerce. The new concept of marketing for e-commerce can be summarized in Table 1.

There would be a basic change in the concept of marketing. In traditional marketing, it is firms that endeavor to seek consumers. Meanwhile, it is consumers, in Digital Marketing, that approach firms. This reversal has been enabled by the fact that transactions between firms and consumers occur through the internet. To be specific, via the internet, consumers take the initiative in transactions by 'surfing' the internet and visiting firms' home pages.

**Table 1. Traditional Marketing Vs Digital Marketing in the Digital Age**

	Traditional Marketing	Digital Marketing
Basic Concept of Marketing	Firms go to consumers.	Consumers go to firms.
Concept of Consumers	Target for sale	Target for continuous relationship
Marketing paradigm	Transaction marketing	Relationship marketing
Source of Advantage	Brand	Information
Market Survey	Limit in space	No limit
Market Scope	Limit in space	No limit: globalization

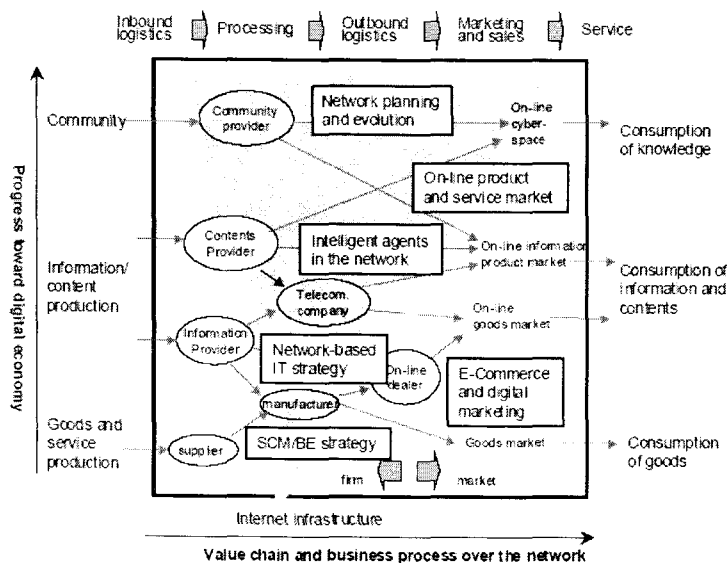
### III. LITERATURE

#### An integrated view of digital management

The integrated view in Figure 2 is basically a composite of various views and provides us with evolutionary paths of the market and the industry. The x-axis denotes the value-chain or the business processes, while the y-axis denotes time.

The circles are the major players and the rectangles denote the typical business functions or issues on the corresponding position. The integrated view is helpful to understand the interrelationships between the functional and structural components of digital economy and digital management. Also, they will be used as a tool to generate and evaluate the future research issues concerning the digital management.

**Figure 2 An integrated view of digital management**



The trend of internet marketing research in future

Ngai's(2003) research in Table 2 was internet marketing relation paper to the analysis object and the paper to be analyzed from 1996 to 2000 year. The number of paper which is quoted at Ngai's research is a gun 270 volume.

The results to try to examine table 2 are as follows.

- We have to be able for the new marketing research to apply at new paradigm.
- The marketing research in digital age must concentrate on a variety of the research subject.

**TABLE 2 Topics Classification of Papers on the Internet Marketing**

Topics		number	Percentage(%)
The IM environment	Consumer behavior	32	11.9
	Legal, political, and economic issues	11	4.1
	Ethics and social responsibility	6	2.2
Total		49	18.2
IM function	Management, planning and strategy	40	14.8
	Retailing	19	7
	Channels of distribution	28	10.4
	Market structure	18	6.7
	Physical distribution	1	0.4
	Pricing	13	4.8
	Product	4	1.5
	Sales promotion	3	1.1
	Advertising	14	5.2
	Sales management	1	0.4
Total		141	52.2
Special IM applications	Industrial	4	1.5
	International and comparative	16	5.9
	Services	11	4.1
Total		31	11.5
IM Research	Theory and philosophy of science	12	4.4
	Research methodology	22	8.2
	Information technology	11	4.1
Total		45	16.7
Other topics	Educational and professional issues	2	0.7
	General IM	2	0.7
Total		4	1.4

Source : E. W. T. Ngai(2003), "Internet marketing research: a literature review and classification," European Journal of Marketing, Vol.37, No.1/2, 24 ~ 49.

- For Interdisciplinary study marketing researcher must be activated for a variety of the research subject.

The trend of the market change and marketing research direction of the future

Day and Montgomery'(1999) research in Table 3 expressed five environment changes about the marketing field in journal of marketing and presented three directions of research to be adapted to such environment changes. In the digital marketing age, internet, experience marketing, and customer relationship management are appearing to a key point issue.

## IV. CHALLENGES AND SUBJECTS OF MARKETING RESEARCH

Challenges of marketing research

The new realities of the business environment has led a number of authors to develop the new rules for the new economy. While some of these "rules" encompass some marketing perspectives we do have to focus explicitly on a new set of "principles" for marketing in a digital age.

Marketing has a unique opportunity to lead the way in developing the needed

**Table 3 The trend of the market change and marketing research direction of the future**

Challenges for Academic Marketing	contents
Challenge 1 : Provide meaningful measures and inferences	<ul style="list-style-type: none"> <li>• Need to help managers measure the performance of marketing activities</li> <li>• Create and develop the methods to transform mere data into information</li> </ul>
Challenge 2 : Cross boundaries and understand functional interfaces	<ul style="list-style-type: none"> <li>• How to get marketing and the other management disciplines to work together</li> <li>• Cross-cultural research seems particularly important in this rapidly globalizing economy</li> <li>• Better two-way cooperation and collaboration between academic marketing and practice is need</li> </ul>
Challenge 3 : Rethink the role of theory	<ul style="list-style-type: none"> <li>• As theories become more elaborate, they become less useful to managers. What are more valuable to managers are the conceptual frameworks, typologies, and metaphors</li> </ul>

Source : Day and Montgomery(1999), "Charting New Directions for marketing," Journal of Marketing Vol. 63, pp 3~13.

insights into the heterogeneous cyber consumers and business to business customers, as well as the marketing driven valuation methods and measures for e-business. Measures which are based on the firm's success in engaging and captivating the consumer and their loyalty.

For industry and especially established firms, the challenge is how to become more innovative and agile? What to adopt and what to reject from the practice of the innovative new internet entrepreneurs? In addressing these issues a key challenge for the firm is the adaptation of the adaptive experimentation philosophy and approaches that encourage the development of customer centric.

Key aspects of the new approaches to marketing research offered by the new technology are the opportunities it offers to the firm, and to new type internet marketing research firms, to collect information that is initiated and generated by customers and other stakeholders.

The reinvention of marketing requires a reexamination of all the concepts, methods and practices of marketing to assure their appropriateness for the changing global digital environment. This poses an enormous challenge both to the academic community and the business practitioners.

#### Subjects of marketing research

The Marketing subject focuses on the

challenges management faces in developing and implementing a successful marketing program. The importance of marketing arises from its role as the boundary function between the organisation and the marketplace. Changes in the market require changes by the company. Similarly, changes made by the company create changes in the market. This subject takes a strategic approach to creating a competitive advantage through marketing.

The digital age, based on the rapid development of digital technology, can be understood as a process, through which old principles are altered fundamentally, creating a new paradigm. For firms to survive, they must rebuild the concept of marketing to reflect a changing environment in the cyber market.

Marketing in the digital age has transformed into 'relationship marketing' from 'transaction marketing.' The core of relationship marketing is feedback or interactivity, which means that firms would spend more time and energy in exchanging information with consumers and in satisfying their particular needs and tastes.

Business involved in the digital age are not limited by space and time because of the characteristics of the internet. In other words, the market is expanded or globalized so that business plan and marketing strategy are made on the basis of the world.



## V. DISCUSSION

The practice of marketing has been evolving for more than 70 years, and every few years, the challenges evolve in new ways. At digital marketing we have developed the technology to transform customer and prospect data into highly personalized one-to-one communications.

As the digital revolution has taken place, companies have tended to look at the technology itself, but paid too little attention to its implications for marketing. In the new business environment a focus on the changing customer needs and behavior

and establishing strong relationships with the customers and other stakeholders is a must. Marketing competencies, focused on the new rules of marketing articulated here, is, therefore, one of the primary sources of advantage for companies in a digital age. We cannot continue to work as usual. If marketing is to play a central role in the new digital environment it must reinvent itself.

In summary, the market environment becomes more the digitalization and is changed into a global market at the future. The consolidation between business and business will be enlarged to according to the market environment.

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