

PRESCRIPTION DRUG ADVERTISING: PROS, CONS, AND AVENUES FOR FUTURE RESEARCH

Yam Bahadur Limbu

Department of Marketing, New Mexico State University

PO Box 30001/MSC5280

Las Cruces, NM 88003-8001, USA

Ph: (505) 650-6706. Fax: (505) 646-1498. yam@nmsu.edu

ABSTRACT

This article attempts to present the pros, cons, and avenues for future research of Direct-to-Consumer (DTC) advertising of prescription drug in the United States. By employing content analysis technique of academic marketing journals published from 1997 to 2006, it discloses past trend of academic researches on behalf of prescription drug advertising (PDA). Contrary to the anticipation, only a few articles on PDA are published by the academic researchers during the decade. It is also found that there is lack of constructive articles on PDA in academic journals since most of them are focused on negative facets of PDA. Moreover, it attempts to offer rationales and issues for future constructive research on PDA.

Introduction

Direct-to-Consumer (DTC) advertising of prescription drug is allowed only in the U.S. and New Zealand. The Food and Drug Administration (FDA) permitted on DTC advertising of prescription drug in 1997 in the United States. In the U.S., advertising expense on prescription drug is increasing each year. It reached \$2.47 billion in 2000, \$3.2 billion in 2003 (IMS Health Report, 2000), and \$4.2 billion in 2005 (IMS Health Report, 2006). More than one third of the pharmaceutical industry's workforce is employed in marketing and there are more than 88,000 sales representatives serving in the U.S. market who are paid more than 7 billion dollars per year (PhRMA, 2001). A research of the Kaiser Family Foundation (2004) found that spending in the U.S. for prescription drugs was \$162.4 billion in 2002, 4 times larger than the amount spent in 1990 and was escalated to \$188.5 billion in 2004.

From 1995-2002, for seven successive years, pharmaceutical manufacturers were the nation's most profitable industry. In 2004, they ranked third with return on revenues of 16%, compared to 5% for all Fortune 500 firms (Fortune 500, 2005). They ranked fifth in 2005 (Fortune 500, 2006). Each additional dollar spent by the drug industry on DTC advertising provides an additional \$4.20 in pharmaceutical sales. About 13% of Americans have gotten a specific prescription in response to seeing a drug ad (Kaiser Family Foundation, 2003).

Purposes of the Study

The primary goal of this paper is to provide a review of literature on the favor and opposition of DTC advertising of prescription drugs, to present the past research trend of prescription drug marketing, and to offer justification and probable issues for future constructive research on PDA.

Review of Literature

With the development of drug marketing, several concerns have been raised. According to Nadar (1999), consumers are currently debating on the value of DTC advertising of prescription drugs. More importantly, there are growing arguments among various individuals and organizations whether advertising of prescription drugs should be banned. After 1997, DTC advertising of prescription drugs has been the subject of intense debate (Hoek, Gendall, and Feetham, 2001). In this paper, the author reviews the debate of PDA under two separate subheadings as follows.

Arguments on the Favor of Drug Advertising

The drugs advertisers claim that major goal of DTC advertising is to inform the consumers about the drugs and make them ask doctors about the advertised drugs. Some of the previous findings support this hypothesis. For instance, a survey conducted by Weissman et al. (2003) found no widespread adverse health affects resulting from drug ads aimed at consumers. They also found no differences in health effects between patients who took advertised drugs and those who took other prescription drugs. Similarly, the advocates of DTC drug advertising argue that advertisements are useful because they educate consumers. In their opinion, consumer advertising empowers patients by helping them talk with their doctors. Older, better-educated, and women were more likely to seek information in the drugs ads (Huh and Becker, 2005). They also assert that DTC ads can stimulate consumers to be self-educated through other information sources and to get more involved in their healthcare. Similarly, Holmer (1999) states that direct-to-consumer advertising encourages millions of Americans to consult their physicians and it can help to improve public health because a number of leading diseases are under-diagnosed and under-treated. In this context, DTC advertising is a highly effective way to communicate the availability of treatments to the public.

A study by Prevention Magazine based on a national survey conducted during the spring of 1998 with technical assistance from the FDA found a very genuine role of DTC advertising in enhancing public health. The results show that - (a) more than 53 million consumers talked to their physicians about the medicine they saw advertised and an additional 49 million sought information from another source, such as the Internet; (b) thirty-eight percent of those who talked to their physicians about the medicine they saw advertised sought information about the product from at least one other source; (c) about 21.2 million consumers were encouraged to talk with their doctors about the medical condition or illness they had never talked with their doctor about before seeing an advertisement; and (d) 2.1 million consumers received a prescribed drug as a direct result of seeing a DTC advertisement.

The FDA has released results of its survey of 500 physicians about DTC advertising for prescription drugs. The results confirm that DTC advertising, when done correctly, can serve positive public health functions such as increasing patient awareness of diseases that can be treated and prompting thoughtful discussions with physicians that result in needed treatments being prescribed. Highlights of the study mentioned in FDA Talk Paper 2003) are: (a) many physicians believe that DTC can play a positive role in their interactions with their patients; (b) many physicians also thought that DTC ads made their patients more involved in their healthcare; (c) physicians also felt they had to provide additional information to patients beyond what patients retained from the DTC advertising; and (d) eight percent of doctors felt much pressured to prescribe the specific brand name drug when asked about it.

Dunn (2001) seeks the answer of a frequent debated question “Does advertising raise a product's cost?” In his opinion, the expense of advertising, in fact, lowers the product's cost in the long-run because the advertising increases a company's sales and decreases per unit cost of production.

Arguments on the Opposition of Drug Advertising

The opponents of DTC advertising of prescription drug are skeptical on the significance and role of DTC drug advertising to consumers. Around 100,000 people die every year from the adverse effects of prescription drugs which is more than all murders, auto accidents, and airplane crashes combined (Moore, 1998). Lexchin and Mintzes (2002) found no evidence of DTC advertising in the improvement of healthcare outcomes. According to Rose (1997), the promotional activities of drug can contain misleading or inaccurate information, disguise drug company influence in promotional materials, put drug companies in a position to control the information physicians receive, use gift-giving to foster a feeling of goodwill or indebtedness on the part of physicians, promote increased sales through explicit arrangements where gifts to physicians are contingent upon their prescribing a particular drug, and attempt to influence research outcomes and obtain favors from researchers.

Ziegler, Lew, and Singer (1995), in their study, provided empirical data about the accuracy of the information concerning drugs presented to physicians by pharmaceutical sales representatives. The result shows that twelve of 106 statements (11%) about drugs were inaccurate. In a survey of 27 physicians who attended these presentations, seven (26%) recalled false statement made by a pharmaceutical representative, and 10 (37%) said information from the representatives influenced the way they prescribed drugs.

Another issue of debate was the lack of safety information in the DTC advertising of prescription drug. For instance, Wilkes et al. (1992) in their study found no potentially valuable information about risk factors and possible misconceptions in the drug ads. Generally, older consumers, who represent a large portion of the market for prescription drugs, are not satisfied with the medical information of advertisements of prescription drugs. Their satisfaction concerning the information about the benefits of the drug is lower than that of others. Similarly, less educated consumers are less satisfied with the information about the benefits of the drug than are highly educated consumers.

Gifts to physicians have been, for many years, a foundation of pharmaceutical marketing. Gifts are often offered to physicians in exchange for giving attention to promotional material or presentations (Ziegler, Lew and Singer, 1995). Some critics of drug ads argue about the negative effect on physician-patient relationships because doctors may not prescribe medicines to their patients, which they have seen in the ads. Some detractors of drug advertising perceive the heavy promotional expenditure made by pharmaceutical companies as an indicator of increased drug price. Relman and Angell (2002) find that prices for prescription drugs are on average much higher in the United States than anywhere else in the world due to high marketing expense.

Methods

This study employs content analysis technique to examine the past research trend of academic research on DTC advertising of prescription drug. Macias and Lewis (2003) have successfully employed the content analysis technique to examine the content and form of direct-to-consumer drug Web sites and explore their public policy implications. According to Kassirjian (1977), content analysis is the study of the messages and could examine the number of articles as a unit

of measurement. Thus, this study assumes the number of article as a unit of measurement. The sampling frame includes two segments of samples of marketing journals published from 1997 to 2006. Particularly, the author is interested to see the content from the year 1997 because it was the year the FDA loosened restrictions on DTC advertising of prescription drug in the U.S. In the first phase, contents of top twenty marketing academic journals ranked by Hult, Neese, and Bashaw in 1997 were examined and analyzed. However, the sample unit entitled “*Advances in Consumer Research Proceedings*”, which is ranked 13th marketing academic journal, has been excluded from this study since it is more a proceeding rather than an academic journal. In the second phase, five renowned marketing journals of advertising published from 1997 to 2006 were examined. For this study, the articles relating prescription drug advertising were accumulated from the Business Source Premier, New Mexico State University (NMSU) Library Electronic source. Subsequently, titles, authors, and abstracts of each article of every issue of all sampled journals were thoroughly studied from the electronic format of relevant journals. All articles of sampled journals published during ten years (1997 to 2006) were available in the NMSU Library.

Results

Past Trend of Research on Prescription Drug Advertising

Contrary to the prediction, the study found only seventeen articles relating to PDA that were published in top twenty academic marketing journals from 1997 to 2006. Surprisingly, only five journals (*JM, JMR, JA, JAR, and JPPM*) account for the publication of these articles. The rest fourteen journals did not publish even a single article relating to PDA during the decade. Out of the published articles, 64.7% (11) were published in a single journal i.e., *Journal of Public Policy & Marketing*. As expected, 82.4% (14) of authors of those articles were from academics, 11.8% (2) from practitioners, and 5.9% (1) from both academics and practitioners. At least there exists a college professor who authored or coauthored 82.4% (14) of the articles and 17.6% (3) were coauthored by at least one doctoral student.

Table 1
Articles on PDA on Top Twenty Marketing Journals from 1997 to 2006

Name of Journal	Rank of Journal	No. of Article	Objectives of Articles (a) and Types of Authors (b)	Details of Articles
JM	1	1	a) To explores the revenue impact of marketing-mix variables and their interactions. b) By a doctoral student and two professors	Narayanan, S., Desiraju, R., & Chintagunta, P. K. (2004). Return on Investment Implications for Pharmaceutical Promotional Expenditures: The Role of Marketing-Mix Interactions. <i>Journal of Marketing</i> , October, Vol. 68, 4
JMR	2	1	a) To explore whether drug advertising can improve therapy compliance. b) By professor	Wosinska, M. (2005). Direct-to-Consumer Advertising and Drug Therapy Compliance. <i>Journal of Marketing Research</i> , Vol. XLII, No. 3. August
JCR	3	-	-	-
JR	4	-	-	-
JAMS	5	-	-	-
MS	6	-	-	-
HBR	7	-	-	-
JBR	8	-	-	-

JA	9	2	a) To examine content and form of direct-to-consumer drug Web sites b) By a professor and a practitioner	Macias, W. and Lewis, L. S. (2003). A Content Analysis of Direct-To-Consumer (DTC) Prescription Drug Web Sites. <i>Journal of Advertising</i> . Winter, Vol. 32 Issue 4, p43-56, 14p
			a) To explore older consumers' perceptions of DTC ads effects on themselves and others b) By professors	DeLorme, D. E., Huh, J., and Reid, L. N. (2006). Perceived Effects of Direct-To-Consumer (DTC) Prescription Drug Advertising on Self and Others. <i>Journal of Advertising</i> . Fall, Vol. 35 Issue 3, p47-65
JAR	10	2	a) To evaluate: consumer attitudinal reactions toward print DTC ads, readership of and interest in such ads, and persuasiveness of and response to such advertising. b) By practitioners	Mehta, A. and Purvis, S. C. (2003). Consumer Response to Print Prescription Drug Advertising. <i>Journal of Advertising Research</i> . June, Vol. 43 Issue 2, p194-206, 13p
			a) To examine the extent to which message strategies used in the direct-to-consumers drug print advertisements affect brand-level advertising awareness in the U.S. b) By professors	Roth, M. S., (2003). Media and message effects on DTC prescription drug print advertising awareness. <i>Journal of Advertising Research</i> . Vol. 43. June
MS	11	-	-	-
JPSSM	12	-	-	-
JPPM	14	11	a) To examine types of information collected at Web sites that promote product-claim drugs and studies the privacy notices. b) By professor	Sheehan, K. B. (2005). In Poor Health: An Assessment of Privacy Policies at Direct-to-Consumer Web Sites. <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 24 Issue 2, p273-283, 11p
			a) To recognize many legitimate issues involved on DTC drug advertising and to weigh the merits of various opinions. b) By professors	Farris, P. W. and Wilkie, W.L. (2005). Marketing Scholars' Roles in the Policy Arena: An Opportunity for Discourse on Direct-to-Consumer Advertising. <i>Journal of Public Policy & Marketing</i> , Spring, Vol. 24 Issue 1, p3-6, 4p
			a) To examine impact of DTCA and physician detailing on the choice of antidepressant medication. b) By professors	Donohue, J. M. and Berndt, E. R. (2004). Effects of Direct-to-Consumer Advertising on Medication Choice: The Case of Antidepressants. <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 23 Issue 2, p115-127, 13p
			a) To investigate the FDA's perceptions of the problems with DTC advertising b) By professors	Sheehan, K. B. (2003). Balancing Acts: An Analysis of Food and Drug Administration Letters About Direct-to-Consumer Advertising Violations. <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 22 Issue 2, p159-169, 11p
			a) To examine whether consumers attend to the brief summary of risk information in product-specific print DTC advertisements and whether they find it useful in discussing the risks of taking the drug with their physicians b) By a doctoral student and two	Menon, A. M., Deshpande, A. D., Perri III, M., and Zinkhan, G. M. (2003). Consumers' Attention to the Brief Summary in Print Direct-to-Consumer Advertisements: Perceived Usefulness in Patient-Physician Discussions. <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 22 Issue 2, p181-191, 11p

			professors	
			a) To discuss the regulation policy on the marketing of prescription drugs using direct-to-consumer (DTC) advertising in the United States and New Zealand b) By professor	Cohen, J. B. (2002). Introductory Comments: Direct-to-Consumer Prescription Drug Advertising: Evaluating Regulatory Policy in the United States and New Zealand . <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 21 Issue 2, p172-173, 2p
			a) To suggest that a further relaxation of FDA rules would accelerate the dissemination of valuable information, with favorable consequences for drug development and consumer health b) By resident scholar	Calfee, J. E. (2002). Public Policy Issues in Direct-to-Consumer Advertising of Prescription Drugs . <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 21 Issue 2, p174-193, 20p
			a) To see whether direct-to-consumer advertising results in any improvement in health outcomes. b) By a doctoral student and a professor	Lexchin, J. and Mintzes, B. (2002). Direct-to-Consumer Advertising of Prescription Drugs: The Evidence Says No . <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 21 Issue 2, p194-201
			a) To outline the evolution of DTCA in New Zealand and the development of an industry-based self-regulatory system and examine the concerns rose about self-regulation of DTCA. b) By professors	Hoek, Janet and Gendall, Philip. (2002). Direct-to-Consumer Advertising Down Under: An Alternative Perspective and Regulatory Framework . <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 21 Issue 2, p202-212, 11p
			a) To describe the unsatisfactory experience of taking a complaint and examines the argument that DTC advertising provides consumers with important information b) By practitioners	Coney, S. (2002). Direct-to-Consumer Advertising of Prescription Pharmaceuticals: A Consumer Perspective from New Zealand . <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 21 Issue 2, p213-223, 11p
			a) To present information on a study which examined the effects of manufacturers' direct-to-consumer advertising on retail gross margins b) By professors	Kopp, S. W. and Sheff�t, M. J. (1997). The Effect of Direct-to-Consumer Advertising of Prescription Drugs on Retail Gross Margins: Empirical Evidence and Public Policy Implications . <i>Journal of Public Policy & Marketing</i> , Fall, Vol. 16 Issue 2, p270-276
JME	15	-	-	-
PM	16	-	-	-
SMR	17	-	-	-
JB	18	-	-	-
JIBS	19	-	-	-
IMM	20	-	-	-

By considering year-wise publication of articles on PDA, no article relating to PDA was published in top twenty marketing journals during the year 1998 to 2001. But, in 2002 and 2003, there were published the highest number of articles reaching up to 5 articles a year. The average publication of such articles is 1.7 articles per year and 0.085 articles per journal per year. Total thirteen articles about PDA were published in five renowned advertising journals from 1997 to 2006. In comparison to top twenty marketing journals, the number of articles published in five renowned marketing journals is bigger, i.e. 0.26 articles per journal per year. Like the case of top twenty marketing journals, 54% of them were published in *International Journal of*

Advertising in a single issue of 2003. About 70% of the articles were written by academics, 15% by practitioners, and the rest were coauthored by both practitioners and academics. In eleven (84.6%) articles, there is at least one college professor as an author or coauthor. 30% (4) of the articles are authored or coauthored by practitioners. At least one doctoral student has authored or coauthored in 3 (23%) articles.

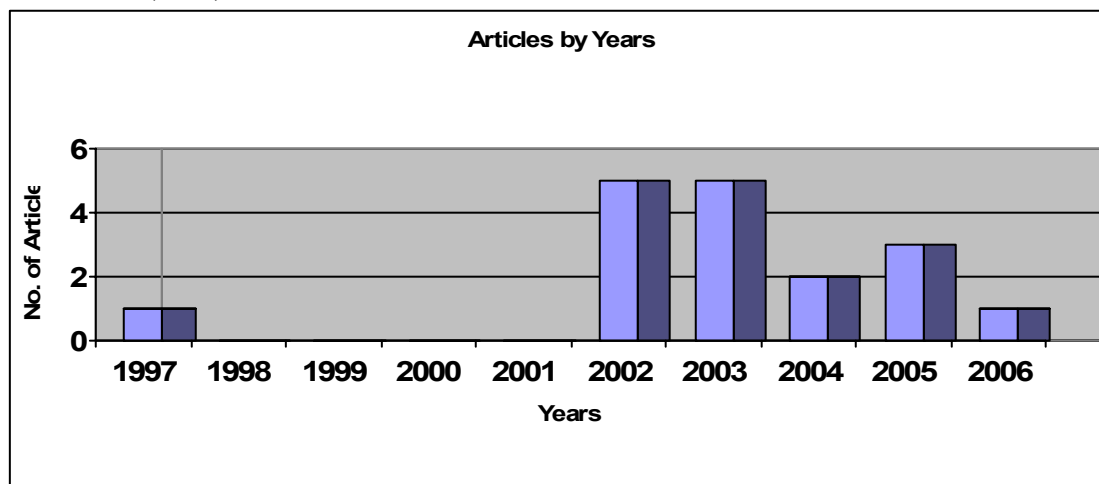


Figure 1

Table 2
Articles on PDA on Five Renowned Advertising Journals from 1997 to 2006

Name of Journal	No. of Articles	Objectives of Articles (a) and Types of Authors (b)	Details of Articles
JA	2	a) To examine the content and form of direct-to-consumer drug Web sites b) By a professor and a practitioner	Macias, W. and Lewis, L. S. (2003). A Content Analysis of Direct-To-Consumer (DTC) Prescription Drug Web Sites . <i>Journal of Advertising</i> . Winter, Vol. 32 Issue 4, p43-56.
		a) To explore older consumers' perceptions of DTC ads effects on themselves and others; to determine how perceptions are influenced by respondent characteristics; and to examine how self/other effect perceptions are related to ad-prompted behaviors. b) By professors	DeLorme, D. E., Huh, J., and Reid, L. N. (2006). Perceived Effects of Direct-To-Consumer (DTC) Prescription Drug Advertising on Self and Others . <i>Journal of Advertising</i> . Fall, Vol. 35 Issue 3, p47-65, 19p
JAR	2	a) To evaluate consumer attitudinal reactions toward print DTC advertising, readership of and interest in such advertising, and persuasiveness of and response to such ads. b) By practitioners	Mehta, A. and Purvis, S. C. (2003). Consumer Response to Print Prescription Drug Advertising . <i>Journal of Advertising Research</i> . June, Vol. 43 Issue 2, p194-206, 13p
		a) To examine the extent to which message strategies used in the direct-to-consumers drug print advertisements affect brand-level advertising awareness in the U.S. b) By professors	Roth, M. S., (2003). Media and message effects on DTC prescription drug print advertising awareness . <i>Journal of Advertising Research</i> . Vol. 43.June
IJA	7	a) To examine three types of consumer behaviors induced by DTC drug ad exposure b) By professors	Huh, J. and Becker, L. B. (2005). Direct-to-consumer prescription drug advertising: understanding its consequences . <i>International Journal of Advertising</i> , Vol.

			24, No. 4, pp.441-466
		a) To examine the evolution of DTC advertising in New Zealand, compares the its self-regulatory model with regulation by the US Food and Drug Administration, and examines consumer survey results from both nations. b) By two professors and a practitioner	Calfee, J., Gendall, P., and Hoek, J. (2004). Direct-to-Consumer Advertising of Prescription Medicines in the United States and New Zealand- An Analysis of Regulatory Approaches and Consumer Responses. <i>International Journal of Advertising</i> , Vol. 23, No. 2, pp.229-251
		a) To examine arguments presented for and against the use of DTCA for prescription pharmaceuticals and reviews the positions put forward by many interested stakeholders for and against DTCA. b) By professor	Auton, F. (2004). The advertising of pharmaceuticals direct to consumers: a critical review of the literature and debate. <i>International Journal of Advertising</i> , Vol. 23, No. 1, pp.5-52
		a) To draw on the largest healthcare-focused consumer database in the United States to answer a few of the questions at issue-with the authority of over 21,000 consumer respondents b) By practitioners	Moore, C., White, H. J., Draves, L.P., and Soong, R. (2004). 'Ask Your Doctor!' measuring the effect of direct-to-consumer communications in the world's largest healthcare market. <i>International Journal of Advertising</i> , Vol. 23, No. 1, pp.53-68
		a) To review current controversies surrounding DTC promotion of prescription drugs in an attempt to address the empirical information void and to provide a framework for sound policy deliberations by policy-makers. b) By professors	Chamberlain, K. and Eagle, L. (2004). Prescription medication advertising: professional discomfort and potential patient benefits - can the two be balanced? <i>International Journal of Advertising</i> , Vol. 23, No. 1, 2004, pp.69-90
		a) This paper identifies key effectiveness measures that are appropriate for the unique situation of DTC advertising, and presents these measures in a unified framework. b) By two Pd. D. candidates and two professors	Perri III, M., Deshpande, A. D., Menon A., and Zinkhan, G. M. (2004). A model assessing the effectiveness of direct-to-consumer advertising: integration of concepts and measures from marketing and healthcare. <i>International Journal of Advertising</i> . Vol. 23, No. 1, pp.91-118
		a) To examine the promotional portion of pharmaceutical advertisements to determine whether factual information and rational arguments are being provided to consumers to inform them of health problems, treatment options, and medical science advances. b) By a doctoral student and two professors	Huhmann, B. A., Argo, J. J., and Main, K. J. (2004). Pharmaceutical advertising in the USA: information or influence? <i>International Journal of Advertising</i> . Vol. 23, No. 1, pp.119-142
JCIRA	1	a) To examine the impact of two kinds of magazine-based prescription drug advertisements on younger and older adults: colorful ads (designed to be memorable) and information sheets (designed primarily to inform). b) By graduate student and professor	Abernathy, L. T. and Adams-Price, C. E. (2006). Memory and Comprehension of Magazine-Based Prescription Drug Advertisements Among Young and Old Adults. <i>Journal of Current Issues & Research in Advertising</i> , Fall, Vol. 28 Issue 2, p1-13, 13p.
JMC	1	a) To review the evolution of DTCA and examine the arguments surrounding it b) By professors	Hoek, J., and Gendall, P. (2002). To have or not to have? Ethics and regulation of direct to consumer advertising of prescription medicines. <i>Journal of Marketing Communications</i> , June, Vol. 8 Issue 2, p71-85

In overall, most of these articles intended to portray the advantages, disadvantages, and history of DTC advertising of prescription drug. Besides these, some articles either concentrated on reviewing the regulation policy of DTC advertising of prescription drug or studying consumer attitudes towards it.

Conclusion and Justification of Constructive Academic Researches

The result of this study clearly indicates that only a few research papers relating to DTC advertising of prescription drug are published in well-known academic marketing journals. In other words, the issue of DTC advertising of prescription drug was somewhat ignored by marketing academics.

To its astonishment, top twenty marketing journals could publish only seventeen articles on prescription drug advertising during the decade. At the same time, it showed considerably less number of constructive researches, the researches that discover not only the problems but also suggest the ways of mitigation and solution. Most of the published articles are primarily focused on pros, cons, and history of prescription drug ads. To some extent, these articles were able to address the contentious issues in drug ads however they did not propose enough constructive ideas for resolving those problems. Therefore, in reality, there is an immense demand of constructive researches for the enrichment of drug ads. The FDA (1999) has declared to encourage sponsors and other interested parties to make know their research relating to the overall effects of DTC promotion for public health.

The vitality of the Constructive Researches are laid on empahiss as many literatures have concluded that DTC advertising of prescription is one of the most debated issues in the marketing. There are growing arguments of banning DTC advertising of prescription drug among consumers and other concerned people. However, it does not seem justifiable to ban the drug advertising made by the pharmaceutical company because a ban would violate drug makers' free speech protections. In the words of Huh, Delorme, and Reid (2006), consumers do not support banning DTC advertising of prescription drug. Although older consumers are significantly less opposed to a DTC advertising ban than their younger counterparts, neither age group favors the total elimination of DTC ads from consumer media. According to [Hoek](#) and [Gendall](#) (2002), many of the criticisms leveled at DTC ads have no empirical foundation. They also argue that the overall benefits arising from DTC ads outweigh the posited but largely unproven disadvantages thought to be associated with it.

The big drug companies, overwhelmingly, spent on average about 35 percent of their income on marketing (SEC reports, 2001). Since annual DTC advertising expense is increasing, it is desired to be the PDA more effective and fruitful. In the words of Calfee (2002), the effects of DTC advertisements on drug consumption and on health care have yet to be evaluated. Therefore, research on DTC drug advertising should not be only the mission of practitioners but also academic researchers have to pay their concentration in this field.

Again, drugs are directly related to consumers' health and must not be advertised like other consumer goods which have no or less intensity of side effect. The concerned individuals or organizations have to pay their attention to eliminate the weaknesses of drug advertising. It is the duty of regulatory authorities to implement a scheme that facilitates to reduce the adverse effects of promotion by meeting consumer needs of 21st Century. At the same time, it is also the responsibility of academic researchers, and marketing executives to diminish unwanted aspects of PDA.

To sum up, the above tradition of writing articles in the arena of DTC advertising of prescription drug clearly shows that they lack substantive researches to address the growing issues on it. Hence, it is essential to be conducted the Constructive Academic Research in order to promote PDA effectively. This kind of research can bring positive impacts to both manufactures and consumers.

Avenues for Future Research

By taking into account of arguments on the opposition of PDA and the past trend of academic research on PDA, this paper proposes some potential issues for future researches on PDA.

Accurate information on drug ads: A study conducted by Ziegler et al. (1995) shows that eleven percent statements about drugs were inaccurate. Similarly, many researches reported the similar results. Thus, future research may be conducted that may help to improve the accuracy of information in drug ads.

Adequate safety information to the consumers/society: According to FDA guidelines, a pharmaceutical company needs to disclose major side effects and contraindications that may be caused by promoted prescription drugs. However, it is frequently criticized that there is lack of adequate safety information in the content of prescription drug ads. For example, TV ads are typically very short that it is difficult to grasp the risk information from 30 to 60 seconds ads. So, future research may identify the ways of providing more adequate safety information.

Learning from drug ads: Opponents of DTC drug advertising argue that learning from drug ads is not effective. For example, a survey research done by Kaiser Family Foundation has found that almost three out of four people who had just seen an ad said they learned little or nothing about the specific drug being advertised. Therefore, future research may discover empirical evidence how much the consumers learn from such ads and find the ways of making learning from drug ads more effective.

Tradition of gift to physicians and pharmacists: Many research results claimed that there is a tradition of offering gift to doctors so that they prescribe the newly manufactured drugs even the quality of drug is poor. Future research can investigate and suggest for making physicians more responsible toward consumers/society.

Accountability of regulation bodies: A study done by Wilkes, Doblin, and Shapiro (1992) explored that more than ninety percent of advertisements were considered to be in violation of the FDA regulations. It is also argued that the FDA is still struggling to monitor and review such ads. Future research can evaluate the accountability of regulation bodies.

Cost of drug: The consumers and other parties are arguing the raising cost of drug caused by heavy ads expenditures. However, in the opinion of Dunn (2001), the expense of advertising actually lowers the product's cost in the long-run. Therefore, the future research can be conducted to settle this dispute.

Argument of banning the drug ads: According to Relman (2002), prescription drug ads must be banned. However, some researchers like Dunn (2001) asserts that advertising, of prescription drugs or anything else, is a form of free speech that should never be restricted, unless it's fraudulent. Future research may attempt to justify on the rationality of these arguments.

Limitations of the study

One of the limitations of this study is the lack of further statistical analysis to assess the precision and validity of the objectives proposed in the paper. This study could not defend why academic researchers were not involved much on DTC advertising of prescription drug. Future researches could discover the underlying reasons of it. The sampling frame and samples are fixed in nature. The study is based on academic journals so that the result could be a reverse if journals relating practitioners are sampled. The electronic data source used in this study may not meet the optimum criteria of reliability and validity.

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