# On-Line Consumer Comments (E-Wom): A Case Qualitative Analysis on Resort Hotel Consumers

Yasin Bilim, Alaaddin Başoda

Abstract-The recent growth of internet applications on hospitality and tourism provokes on-line consumer comments and reviews. Many researchers and practitioners have named this enormous potential as "e-WOM (electronic word of mouth)". Travel comments are important experiential information for the potential travellers. Many researches have been conducted to analyse the effects of e-WOM on hotel consumers. Broadly quantitative methods have been used for analysing online comments. But, a few studies have mentioned about the positive practical aspects of the comments for hotel marketers. The study aims to show different usage and effects of hotel consumers' comments. As qualitative analysis method, grounded theory, content and discourse analysis, were used. The data based on the 10 resort hotel consumers' on-line comments. Results show that consumers tend to write comments about service person, rooms, food services and pool in their online space. These indicators can be used by hotel marketers as a marketing information tool.

Keywords ---Comments, E-WOM, hotel consumer, qualitative.

## I. INTRODUCTION

**P**ARALLELLING with the increasing web applications, consumers tends to comment on web sites. So, each user independently connects with the other user, shares and gets more info [1]. In many studies, it was identified that potential consumers are affected by the comments made by others and see each of the comments as a reference source in their decision making process [2]-[8]. In addition, it is observed that consumer comments, one of the factors influencing the process of marketing, hold a considerable place in the web application of businesses. Therefore, consumer comments are seen that not only the source of information for other consumers but also an information gathering tool of businesses they use for their customer-focused marketing strategy [9].

One of the most common areas of this information sharing tool which is described as electronic comment is tourism. In a survey conducted in the United States, tourism industry is stated to be the busiest sector of searching electronic information and related processes [10]. Some features of tourism products such as being abstract and cannot be tested previously, consequently having a high risk of purchasing, being seasonal and presented in a highly competitive environment [11], makes consumer experiences more important rather than advertising and marketing information of processes. Therefore, it is suggested that tourism consumers are affected by other people's individual comments that are of consumers like them [12], hence the tendency to others' comments which are shared after their experiences, trust and share these information with the tertiary contacts is increasing [12], [1].

In recent years, many academic and sectoral studies for ereviews are conducted. When reviewing these studies, it is seen that the relationship between the internet and consumers are mostly dealt with and only one way applications of businesses have been focused until very recently. And it is stated that studies related to e-comments of consumers are increasing and the studies dealing with different aspects of this comment are in adequate [13], [1]. This failure is observed in the tourism sector too. The topic being up to date and having practical effects, also there being very little work in the related literature (in the field of tourism and hospitality), make this study important. The aim of this study is to make the qualitative analysis of consumers' electronics comments for holiday hotels and to examine the effects of its usage as a means of marketing information. In other words, this study is for the examining the place of consumers' e-comments particularly in marketing activities, and analyzing of their hotel reviews in the light of developments and evaluations.

# II. ELECTRONIC CONSUMER COMMENTS

The rapid development of the internet and other information technologies is increasing the consumers' ability to share their ideas and opinions and reach others' opinions [14]. The power of "announcement" (Word-of-mouth) and its effects in marketing are known significantly. Positive and negative perceptions of consumers about the products they used or bought constitute the basis of communication [15]. The concept of consumer electronic announcement is expressed as the new name of communication of the consumers made over the comments; they shared via internet without recognizing each other [16].

The effectiveness of e-comments can provide a better understanding about marketing communication. In the past researches, some results were put forward that most of today's consumers (%86) had visited the web sites of corporations and examined the clients' comments and ballots before the purchasing process (%70). According to the results also, it was discovered that most of the consumers (%71) had stated that ecomments inspired confidence to them in the process of purchasing true production. In a research of American consumers oriented (n=2445) it was come out that the information attained from e-comments were sensed as valuable (%82). As per the results, most consumers (%63)

Y. Bilim is with the Faculty of Tourism, Necmettin Erbakan University, Ankara Cad. No: 74, Konya / Turkey (phone: +905332355172 fax: +903322362150, e-mail: ybilim@yahoo.com)

A. Başoda is with the Faculty of Tourism, Selçuk University, Aladdin Keykubat Kampüsü, Konya / Turkey (phone: +905336350928, e-mail: alabasoda@gmail.com)

have preferred the corporations that have e-comments or votes in their web sites, confide in e-comments as an information source and think that these e-comments are suspicious in the meaning of prejudice (%35). Also, if this is evaluated from the point of assurance, in 2014 %10-%15 of e-comments which have been done on social media will be fake. In 2011, to prevent this prevision and provide a confidential comment, electronical security systems were used whose costs amount \$250.000. Just in two days e-comments increase the web site visits in a substantial rate (%10). In the processing of rating ecomments, superior loyalty feeling has improved (%18) and satisfaction rise has been the case (%21). Correspondingly, in electronic form the possibility of being purchased of productions which polled positively in high level has been increasing in %55 rate [17], [18].

# **III. E-COMMENTS OF HOTEL CONSUMERS**

In the web site of bazaarvoive.com that is active in marketing field and features the consumers' comments and reviews, there is considerable data regarding usage of consumer comments in travelling sector. To this data, most of the people who travel individually (%40) and for business (%46) share their experiences on electronical form (2013). Also, most of these individual (%45) and business oriented travellers (%54) make their travel plans to e- comments or applications which are open to consumer's sharing (2013). According to 2012 e-commerce data in America, the e-operation revenue of travel is 162 million dollars. In addition most of the travel planners (%43) read these e-comments and feedback about the comments [20].

Short and clear information points out the importance of ecomments and e-processes explicitly in the field travel and tourism. Whether some assessments done in terms of decision making processes, consumers' e-comments are more active for hotels in tourism sector [21], [22]. In 2011, for each hotel 238 comments were made and it was anticipated that this rate would increase to 332 in 2012 and 465 in 2013. Most of the travellers (%84) express that hotel e-comments are important and they will not make a reservation without analyzing ecomments. This rate is an substantial rate for all people who make an accommodation plan (%32). %22 of the people having smart phones (mobile applications) follows the consumers' e comments. To an information emphasizes the importance of this communication, about the reservation the people accessing the comments and trying to choose between two hotels, prefer those hotels that replied by the hotel managers in the rate of %65 [23], [19].

According to prepared reports related to e-operations, reaching hundreds of millions customers every year see the comments pages as advisor to themselves [21]. Studies which suggesting the importance of comments of consumers in hospitality industry and an effective communication tool used in industry emphasized that comment of consumer in choosing hotel and in the decision process is an important factor [21], [22], [8], [12]. According to studies of [22] 75% of respondents before making a reservation uses the other consumers' comments and criticism as a source of advice. According to researching of a chain hotel 92% of consumers prefer given information and recommendation of someone else

instead of advertising [25]. With regard to the information obtained from reviews, especially the important points in terms of hotel consumers are often emphasized. If these are to be sorted; because, positive comments are more efficient is creating consumer awareness about hotel. Other consumer comments increases the willingness to make comments of others, sharing knowledge and experience so in terms of information can be used by managements [1]. Consumers rely on comments much more than other information [24]. Continuity of information obtained from comments is better than many marketing tools. Consumers have a chance to reach comments again which are important for them. While researching in this way comparisons can be made out of different comments and always accessible [7]. Speed, convenience, cost, accessibility and timeliness increase the interest of consumers to comments within the meaning of obtaining information.

Sites, in which the consumers' comments are published, can have an important role to direct the consumers' choice, because the comments are used for as a source of information. For example, TripAdvisor which is an international platform related with tourism and travel giving information about marketing independently not only consumers but also managements, in addition it offers standings as the scale of management in the sector. Being in the top row in the comments on the pages of this and similar international platforms is a source of prestige, at the same time also accepted as an important and positive image in influencing consumer preferences [25].

#### IV. RESEARCH METHODOLOGY

In the study, to examine consumers' comments on hotels indept, qualitative methods was used to get existing data from the natural environment and directly and to analyse consumer behaviours about e-comment [26], [27]. Reference [26] points out that qualitative methods are more appropriate than quantitative methods to measure human needs and related tendencies. So, as qualitative analysis method, grounded theory, content and discourse analysis, was used.

Grounded theory, as an inductive approach, is used theory development. In the study, the theory was used to find out the embedded meaning and data. Some researchers imply that the absence of theory in the study, in-dept information can be discovered by grounded theory [28], [29]. Grounded theory utilizes the secondary data getting from the recorded interview reports and direct written data sources. Hence, it can be said. the theory is a functional data development method for tourism studies, particularly for consumer behavior researches. Additionally, content and discourse analysis have the same characteristic as well. Both methods use the similar data sources and the results of the each method can be subsidiary for the other. Written phrases have some embedded cues and both methods are used for digging up these cues [30]. Reference [5] was used the both methods to examine usage of consumer comments as a marketing communication tool in factorial sectors. According to [26], similar to grounded theory applications, content and discourse analysis are based on second hand data (written sources from newspaper, books,

consumer forums, etc.). Extending the findings, three methods were utilized for same information sources.

The first step of the grounded theory process is classification of consumer comments. Then, it is proposed to get definitional meanings from decoded comments. The goal of the process is to find out the basic tendencies and ways of consumer thinking from their comments [30], [29]. The classification of the main data was based on content analysis and language characteristics and phrases (words, negative – positive comment cues, extreme wordings, repeated wordings, emphasized statements) were processed by discourse analysis. The main point for all methods is the evaluation of consumer comments, related to marketing communication.

Data were obtained from an international on-line commercial travel platform. The sample (10 top most commented, 5 stars, resort) hotels were selected from Antalya Region (Southeast coast in Turkey) and 322 hotel consumers' comment space (83 domestic, 239 foreign) were examined. Sample size validity was regarded to annual average comment size an international hotel (the average 2011 – 238, 2012 – 332 comments) [23]. Selecting criterions of the sample were like: Common demographic characteristics of consumer, having past experiences so more reliable comments, similarity of the consumer potential, high tendency to make comment, etc. On the other hand, 322 consumer spaces have more than one comment issue, so total comment side is more than 322.

## V. RESULTS AND DISCUSSION

Services designing is a difficult process through basic standards and content because services are intangible and have different evaluation for each person. So, as a services provider, hotels have different quality and services aspects. Based on the nature of hotel services, it can be said each part of services can be discussed and evaluated by consumers differently [31]. The study results are based and evaluated through this viewpoint.

The study was applied to consumers' comments, issued on web pages during Jan – August 2013 periods, encapsulated tourism season. 322 total consumer comment space was examined and within spaces 1479 different comments were analyzed. Firstly, for defining the comments' dimensions, content analysis was used and secondly, for discriminating sub-dimensions, grounded theory approach was used. Thirdly, discourse analysis was used for examining the judgmental attributions of consumers. Based on the contents of comment and related literature, consumer comments on hotels were categorized to 8 main dimensions (total service, consumer, product, service areas, activity, food and beverage, hotel concept, price) and 33 sub-dimensions (service staff as a subdimension of total service, etc.).

When the definitional results were investigated (Table I), main indicators are like:

- a) The most reviewed area of the consumers' was services space dimension (656).
- The most emphasized sub-dimensions of the service space areas were in order, room (146), pool (128), food and beverage areas (79), sea beach areas (73), kids services (50), and the other.

• The most of the comments on total service space were positive (although some researchers emphasized, comments of consumer had negative nature, but some researchers suggested that positive consumers had more reluctant to make positive comments).

Some suggestions can be given to dimensional results: (i) service spaces are the most used areas as room, restaurants, beaches etc., (ii) the spaces are also social areas and this can be attractive for tourists like beaches, restaurants (iii) the spaces belong to basic requirements for tourists (accommodation, food), (iv) the spaces are the main attractiveness that affect the consumer price and quality perceptions.

TABLE I				
COMMENTS' DIMENSIONS				

Dimensions	Sub-dimensions	+	_	=
Differisions		+ 38	-	39
Service Spaces (n=656)	Hotel position	38 35	1	
	Public areas		2	37
	Food & beverage spaces	75	4	79 146
	Rooms	132	14	146
	Sport areas	38	0	38
	Health	20	0	22
	Kids grounds	48	2	50
	Sea/beach	68	5	73
	Pools	121	7	128
	Architecture/Decoration	30	7	37
	Distance between spaces	1	6	7
Total	General service quality	87	2	89
Service (n=425) Consumer (n=396)	Service staff	258	13	271
	Service diversity	65	0	65
	Satisfaction	51	3	54
	Evaluation hotel consumer profile	4	6	10
	Loyalty	37	0	37
	Intention to repeating	97	5	102
	Satisfying the needs	103	1	104
	Recommendation	85	4	89
Product (n=165)	Diversity	37	0	38
	Quality	40	3	43
	Usable	64	20	84
Activities (n=152)	Diversity of activities	55	0	56
	Animations	87	9	96
Concept (n=154)	Hotel concept	35	7	42
	Family with children	98	0	98
	Honeymoon	14	0	14
Food & Beverage (n=492)	Diversity	139	13	152
	Quality	155	9	164
	Service	55	7	62
	Flavor	74	4	78
	Presentation	35	1	36
Price (n=29)		13	16	29

- b) The second most emphasized dimension was food and beverage services (492).
- Sub-dimensions of the food and beverage services were like; quality (164), diversity of the menu (152), flavor (78), presentation (36).
- Total comments on food and beverage services was tended to positive (% 93)

- May be the most important point for the f&b services for hotel consumers was quality which was main requirement for a healthy travel [32].
- c) Total service and related perceptions were the third important consumers' comment dimensions (425).
- In order, service staff (271), total service quality (89), services diversity (65) were the more mentioned sub-dimensions.
- Similarly with the other dimensions, consumer comments tend to positive manner (% 96.4) for this dimension.
- Service staff was the most commented dimension not only for this dimension, for within the general sub-dimensions.
- d) May be, the most strategic indicator of the results was on the consumer. In other word, consumers discuss the direct consumer related issues (396), like satisfying consumer requirements (104), intention about to be repeater consumer - positive tendency (102), recommending to other potential consumers (89), consumer satisfaction (54), to be loyal consumer (37) and the other. Particularly, intention to be repeater consumer and recommendation the others, both of them are important for marketing strategies. Both dimensions' positive effects can be useful by the way of e-WOM [33].
- e) Hotel concept was the remarkable dimension according to results. It was observed from the comments, hotel consumers had distinguished the hotels with regard to suitable for families and kids (98 comments on the dimension). Additionally hotel activities were another regarded issue about hotel concept.

Except of the dimensional evaluations, some indicators had to discuss more. Some results of the study were different from most of the past studies. These studies claim that "price" is the most effective factor on consumer decision making process when the issue is related to hotel products, satisfaction and loyalty [34], [35], [32]. But the study indicates that price has not so much attention by consumers, just 29 consumer comments are related to price. Another interesting result, as a subdimension of service spaces is about hotel pool. Pool is an attractive product for hotel, but it is not mentioned in general comments. According to the study results, the word "pool" appeared so many times in different sub-dimension and in service spaces dimension, 128 comments were mentioned about hotel pool.

As another qualitative method, discourse analysis was used to get deeper qualitative information. The analysis was simply based on the word accounting. May be it is not enough way to explain important points, but word accounting application is a simple way and however comments size is too high to use another eye-catching strategy for discourses. By getting a help from word accounting programme, whole gathered comments (converted to text) were processed. The results show that:

• Total 475 comments about service staff were processed and most repeated words were "helpful" (87), "genial – cheerful" (82), "kind" (67), "friendly" (66), "positive" (52) and other. It was seen, all perceptions had positive characteristics.

- Application to all dimensions, most repeated attributes adjectives were like "wonderful" (336), "fine" (228), "excellent" (164), "clean" (118). It can be said that in their comments, consumers use more positive and remarkable descriptions for the hotel and its services.
- Most repeated words in product based comments were "meal" (304), "staff" (236), "pool" (146), "room" (98).

# VI. CONCLUSION AND IMPLICATIONS

As emphasized in the study, a hotel as a service provider has many tangible or intangible products. So, for the hotel marketers, so many indicators are important. But it is not easy to see these important points. E-WOM is a new information delivery system. Many consumers use other consumers' comments to make best decision. For the hotel consumers, the process and nature of the decision are more difficult, because the service products are intangible, risky and not testable in advance. And e-WOM can be used for pre-experience and decision making cues. So, consumers' comments (as e-WOM) are the information sources, shares with other consumer, and marketers can use this tool for learning consumer wants or requirements.

The study shows, based on the comments, consumers pay attention to so many things and issues. Relatively, services and related issues are more common. Service staff and its characteristics are the most evaluated points by the consumers. Furthermore, food and beverage, room, pool, as the product based structures, are important factors which are mentioned for helping other consumers. Perceptions and approaches of the consumers are generally positive. This is about the consumer variety because of the same standards of hotels. It can be supposed as biased and misjudgment, but the aim of the study is not to evaluate consumers' negative critiques or viewpoints. Negative comments are used for learning gaps but the study aims to find out consumers' more positive viewpoints to use this info for marketing communication strategies. Comments are not directly negative process, shared positive comments can reveals to strength sides of a hotel. Then, these sides can be used for developing marketing strategies.

It has been emphasized, e-wom and consumer comments are very important for hotels. But it not related to gaps, also related to see positive aspects of comments as important market information. Some implications can be presented based on the results;

- Related to their importance, service spaces, like restaurant, pool, must be emphasized in marketing tools.
- Service staff can act as marketer of the hotel. Because of consumer attention, the staff must be more careful.
- E-comments must be evaluated carefully. They mean feed-back, but they also communication tool with the consumer.
- By defining the strength sides of hotel from consumers' ecomments, some positive comments can be put web pages to affect potential consumers.

#### REFERENCES

- Ye, Q., Law, R., Gu, B. and Chen, W., "The Influence of User-Generated Content on Traveler Behavior: An Empirical Investigation on the Effects of E-Word-of-Mouth to Hotel Online Bookings", *Computer in Human Behavior*, 27, pp: 634–639, 2011.
- [2] Duan, V., Gu, B. and Whinston, A. B., "The Dynamics of Online Word-of-Mouth and Product Sales—An Empirical Investigation of the Movie Industry", *Journal of Retailing*, 84, (2), pp: 233–242, 2008.
  [3] Hui, C., "The Impact Mechanism of Consumer-generated Comments of
- [3] Hui, C., "The Impact Mechanism of Consumer-generated Comments of Shopping Sites on Consumer Trust", *Journal of Computers*, 6 (1), pp: 43-52, 2011.
- [4] Javilvand, M. R., Esfahani, S. S. and Samiei, N., "Electronic Word-of-Mouth: Challenges and Opportunities", *Procedia Computer Science*, 3, pp: 42–46, 2011.
- [5] Jalkala, A. and Salminen, R. T., "Communicating Customer References on Industrial Companies' Web Sites", *Industrial Marketing Management*, 38, pp: 825–837, 2009.
- [6] Nielsen (2010) "Global Trends in Online Shopping", A Nielsen Global Consumer Report, hk.nielsen.com/documents/Q12010OnlineShoppingTrendsReport.pdf (21.08.2013).
- [7] Özata, Z., "Tüketiciyi Yönlendiren Güç: Öteki Tüketici", İnternet Uygulamaları ve Yönetimi Dergisi, 2 (2), pp: 1-25, 2011.
- [8] Sparks, B. A., Perkins, H. E. and Buckley, R., "Online Travel Reviews as Persuasive Communication: The Effects of Content Type, Source, and Certification Logos on Consumer Behavior", *Tourism Management*, 39, pp: 1-9, 2013.
- [9] Zan, J., H.T. Loh and Liu, Y., "Gather Customer Concerns from Online Product Reviews – a Text Summarization Approach", *Expert Systems with Applications*, 36, p: 2107–2115, 2009.
- [10] Pew Internet & American Life Project, 2006, "Internet Activities", http://www.pewInternet.org/trends/Internet\_Activities\_7.19.06.htm. (20.08.2013)
- [11] Lewis, R. C. and Chambers, R. E., Marketing Leadership in Hospitality, Foundations and Practices (3rd ed), New York: Wiley, 2000, pp: 185-201.
- [12] Litvin, S. W., Goldsmith, R. E. and Pan, B., "Electronic Word-of-Mouth in Hospitality and Tourism Management", *Tourism Management*, 29, pp: 458-468, 2008.
- [13] Wang, D., Zhu, S. and Li, T., "Sumview: A Web-Based Engine for Summarizing Product Reviews and Customer Opinions", *Expert Systems* with Applications, 40, pp: 27–33, 2013.
- [14] Zhang, Z., Ye, Q., Law, R. and Li, Y., "The Impact of E-Word-of-Mouth on the Online Popularity of Restaurants: A Comparison of Consumer Reviews and Editor Reviews", *International Journal of Hospitality Management*, 29, pp: 694–700, 2010.
- [15] Anderson, E. W., "Customer Satisfaction and Word-of-Mouth", Journal of Service Research, 1 (1), pp: 5-17, 1998.
- [16] Hennig-Thurau, T., Gwinner, K. P., Walsh, G. and Gremler, D. D., "Electronic Word-of-Mouth Via Consumer-Opinion Platforms: What Motivates Consumers to Articulate Themselves on the Internet?", *Journal of Interactive Marketing*, 18 (1), pp: 38–52, 2004.
- [17] Moving Targets 2012, "Why You Should Care about Online Reviews", www.movingtargets.com (20.08.2013).
- [18] People Claim 2013, "The Review of Reviews", http://www.peopleclaim.com/blog/index.php/the-review-of-ratings/ (20.08.2013).
- [19] Bazaarvoice 2013, "Travel Statistics", http://www.bazaarvoice.com/ research-and-insight/social-commerce-statistics/#.UieUS9Knea0 (20.08.2013).
- [20] Funsherpa 2013, "Online Travel Industry Statistics", www.funsherpa.com (20.08.2013).
- [21] Vermeulen, I. E. and Seegers, D., "Tried and Tested: The Impact of Online Hotel Reviews on Consumer Consideration", *Tourism Management*, 30, pp: 123-127, 2009.
- [22] Mauri, A. G. and Minazzi, R., "Web Reviews Influence on Expectations and Puerchasing Intentions of Hotel Potential Customers", *International Journal of Hospitality Management*, 34, pp: 99-107, 2013.
- [23] Olery 2013, "The Naked Truth about Hotel Reviews", www.olery.com (20.08.2013).
- [24] Sparks, B. A. and Browning, V., "The Impact of Online Reviews on Hotel Booking Intentions and Perception of Trust", *Tourism Management*, 32, pp: 1310-1323, 2011.

- [25] Turizm Dünyası 2013, "Online Müşteri Yorumlarının Seyahat Sektörüne Etkisi Artıyor mu?", http://www.turizmdunyasi.com.tr/arsiv/yazi/onlinemuteri-yorumlarynyn-seyahat-sektorune-etkisi-artyyormu#sthash.Nq0haJMJ.dpuf (03.09.2013).
- [26] Veal, A. J., Research Methods for Leisure and Torism: A Practical Guide, Financial Times Pitman Publishing, UK, 1997, pp: 345-362.
- [27] Locke, L. F., Silverman, S. J. and Spirduso, W. W., Reading and Understanding Research, SAGE Publications, UK, 2004.
- [28] Kılınç, U. K., "Sosyal Bilimler Alanında Gömülü Teori Yaklaşımı". İçinde Yüksel, A., Mil., B. ve Bilim, Y., Nitel Araştırma: Neden, Niçin, Nasıl, Detay Yayın, Ankara,2007, pp: 122-131.
- [29] Papathanassis, A. and Knolle, F., "Exploring the Adaption and Processing of Online Holiday Reviews: A Grounded Theory Approach", *Tourism Management*, 32, pp: 215-224, 2011.
- [30] Mil. B., "Nitel Araştırmalarda Söylem Analizi ve İlkeleri". İçinde Yüksel, A., Mil., B. ve Bilim, Y., *Nitel Araştırma: Neden, Niçin, Nasıl,* Detay Yayın, Ankara, 2007, pp: 132-142.
- [31] Lockwood, A. and Jones, P., Managing hospitality operations, In Search of Hospitality: Theoretical Perspectives & Debates, C. Lashley and A. Morrison (eds), Butterworth-Heinemann, Oxford, UK, 2000.
- [32] Powers, T., Marketing Hospitality (2th edition), John Wiley and Son, NY, 1997.
- [33] Kandampully, J. and Suhartanto, D., "The role of customer satisfaction and image in gaining customer loyalty in the hotel industry", *Journal of Hospitality & Leisure Marketing*, 10:1-2, pp: 3-25, 2003.
- [34] Gu, H. and Ryan, C. (), "Chinese clientele at Chinese hotels preferences and satisfaction", *International Journal of Hospitality Management*, 27, pp: 337-345, 2008.
- [35] Jones, D. L., Mak, B. and Sim, J., "A new look at the antecedents and consequences of relationship quality in the hotel service environment", *Services Marketing Quarterly*, 28, pp: 3, 15-31, 2007.