

Altruism and Egoism in e-WOM: The moderating effect of Facebook perceived ease of use

Febriyanti Ismi Puspitasari¹, Santirianingrum Soebandhi^{2*}, Denny Hamzah Subagyo³, Aryo Nugroho^{4*}
^{1,2,3}Faculty of Economic and Business, Universitas Narotama, Surabaya, Indonesia
 febry.sari92@gmail.com, santirianingrum; hamzah.denny@narotama.ac.id
⁴Faculty of Computer Science, Universitas Narotama, Surabaya, Indonesia
 aryo.nugroho@narotama.ac.id

Abstract— Social media has developed as a platform in reviewing and recommending products and services. The intention to share information electronically (e-WOM) can be influenced by the consumers' intrinsic motivation (egoism and altruism). Both of these motivations can also be driven by the perception of ease in using the media. This study examines questionnaires obtained from consumers of several non-large businesses in Surabaya. The results of this study indicate that altruism influences e-WOM intention and PEOU when use Facebook to moderate the correlation of two independent variables on e-WOM intention

Keywords—altruism, egoism, e-WOM intention, PEOU, MSMEs

I. INTRODUCTION

The use of information technology stems from the need for automation of office systems that are installed stand alone. The development of telecommunications media allows the dissemination of wider data from local area networks, blue tooth low energy (BLE) to the internet [1]. A fast-growing internet development enables people to distribute the information globally [2]. Internet has changed global citizen to stay connected without any boundaries. Internet development has been an avid interest for people after the emergence of Web 2.0 technology, which launching social media application [3]. Nowadays, social media has become an effective and efficient application because it enables the users to communicate worldwide easily, either personally or by group [4]. At first, social media was only used for social networks but now it is developed into an application to disseminate not only social information but also businesses information. Various social media applications are growing rapidly and are used throughout the world. Based on the survey conducted by [5], there are 132.7 million (51,8%) of Indonesian have used internet, and about 71.6 million (54%) of them are using Facebook as their favorite social media. Moreover, Indonesia also becomes the most active Facebook users in the world after United States of America, India and Brazil [6] [7]. This phenomenon can be used by the Micro Small and Medium Enterprises (MSMEs) to market its products.

Social media has some advantages, such as its cost-effective and timesaving characteristics, as well as having better engagement with customers [8]. Therefore, it is believed that social media can be utilized in supporting activities of marketing activities [9].

By using social media, information distribution by word-of-mouth (WOM) has transformed into latest ways of communication. Word-of mouth using electronic media (e-WOM), such as through online discussion forum, blog, review sites, social media sites, etc. Social media provides a platform for users to share the activities and experiences or to give review and recommendation of certain products and services given [10]. On the other hand, to get information about company, consumers prefer searching in social media to browsing the Google or other search engine [11]. Notwithstanding that fact, not all consumers are eager to distribute their experiences. According to [12], the involvement of social media users are encouraged by various motives that affecting e-WOM intention. There are two intrinsic motives pushing forward to spread e-WOM intention, that is, egoism and altruism [13]. Egoism is a belief that makes an individual's involvement in a virtual society can increase his prestige, get rewards, and get recognition of superiority feeling to other members. While altruism is a motivation to share information through social media since the participant will get a self-happiness for helping others.

The previous studies related to the role of egoism and altruism in consumers intention to do e-WOM show various result. The study of [14] showed that distributing information in social media will increase individual's professional reputation, which leads to make them become active in social network and share their experiences. Meanwhile, [15] asserted that motivation to get reputation does not have significant relationship to information distribution activities through Facebook group community. The member(s) of the group does not really want to be known by others; thus, reputation is not a compulsory. They only want to help without any expectation.

Helping the company by distributing positive e-WOM is also considered as a natural behavior when the consumers feeling satisfied after using the products or services [13]. Some studies related to this topic had reported that altruism or sharing motivation has significant impact on e-WOM intention [16] [17]. A dissenting result comes from the study conducted by [18] claiming that the pleasure of nisite.com and cloob.com users to help (altruism) does not show significant relationship with consumers' intention to distribute the information.

Different from traditional WOM, e-WOM needs technology and information acceptance supports. If the consumers perceive that Facebook is easy to use, they will tend to distribute the information in social media and vice versa. Therefore, it can be inferred that an easy-of-use platform enables to moderate the influencing factors, as a result, it is able to increase the intention [19]. The previous studies associated with moderating role of perceived ease of use (PEOU) by consumers' intent to do e-WOM shows diverse results. The study conducted by [20] had proposed that PEOU positively moderates the correlation among the electronic service quality (e-SQ) and service satisfaction (e-SS) of websites users of Malaysia Airline (for low-cost carrier). Nonetheless, the study by [21] shows the different result. It postulated that web PEOU does not influence significantly on e-WOM intention inasmuch as individuals may not be keen on wasting time to post on the website, even though their experiences, in a restaurant, is satisfying.

Based on those aforesaid explanations, this study is aiming at analyzing the role of egoism, altruism, and PEOU as the moderator on e-WOM intention. It is expected that the results are able to give understanding to MSMEs about the factors influencing consumers' intention to do e-WOM, thereby they can maximize their social media as marketing tools.

II. HYPOTHESIS DEVELOPMENT

A. Egoism and e-WOM Intentions

Egoism is a motive with the ultimate goal is self-benefit [22]. The prime goal of individuals involved in e-WOM communication is to get reciprocity; prize, reputation, recognition, etc. [16]. On the other hand, in the context of e-WOM communication, those participants involved in sharing-information process are only to seek an opportunity to improve self-reputation as well as to get the prize. Individuals who distribute information on social media think that this activity will enhance their professional reputation by sharing experiences on social networks [14]. Further, egoistic need is one of determining factors of establishing the e-WOM intention, it is also deferred that this egoistic need is positively related to e-WOM intention [16]. Based on those rationales mentioned, the hypothesis proposed is as follows:

H₁: Egoism has positive impact on e-WOM Intention

B. Altruism and e-WOM Intentions

Despite the fact that individuals require egoistic need, they also have intention to help others. Caring to other people's welfare is considered as an altruism. Altruism is an intentional action with the ultimate goal is to concern for helping others without getting any benefits or loss for the doers [22]. For instance, sharing the shopping experience is just because other people may need the information [23]. Individuals performing altruistic will give their knowledge about information required by other online consumers sincerely without expecting rewards, and altruism is also considered as motivating factors for society to spread positive words about the products and services given. Extrapolating from the previous explanation, the hypothesis proposed is in the following:

H₂: Altruism has positive impact on e-WOM Intention

C. PEOU as Moderating Variable

PEOU is the level at which someone trusts that operating a specific application is free of effort [24]. The role of PEOU has occurred analyzed in varied contexts of research, that is: e-Services [25], e-learning [26], social media. However, it is noticed that the previous studies, generally, analyze PEOU as the dependent variable. Recently, some studies examining the moderating role of technology acceptance on e-WOM activities are found. Social network is considered giving many advantages and becomes an easy way to facilitate the factors in associated with the cause of intention [21]. There is a study suggested that PEOU moderates the correlation among perceived security and internet service usage. In a website context, PEOU moderates the relationship between e-SQ and e-SS [20]. Regarding to e-WOM intention, the relationship between egoism and altruism in consumers' intention to spread the information gives various results. By this means, the hypothesis to examine the moderating role of PEOU is:

H₃: Facebook PEOU moderating the relationship between selfishness and e-WOM Intention

H₄: Facebook PEOU positively moderates the relationship between altruism and e-WOM Intention

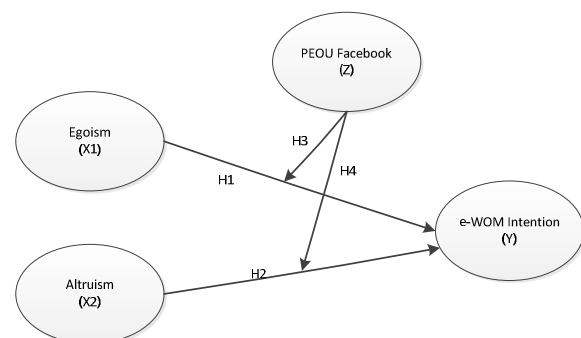


Fig. 1 Conceptual Framework

III. METHOD

The data was obtained by distributing the online questionnaires for consumers of MSMEs in Surabaya through social media application, WhatsApp. The distribution was helped by MSME's owners. As the sampling technique, this study employed probability sampling with simple random sampling techniques. This technique gives same chance to all population without considering its level. The sample size is 5-10 times of indicators. Since there were 21 indicators, total sample gained should be between 105-210 respondents, as the descriptive of the research population. The survey was done for two months, starting from December 2017 until February 2018. We obtained 224 responses from online survey. Yet, only 142 was claimed valid and got further analysis. Likert scale was used in each question proposed, with five levels of measure, going since strongly dissent (equal to one) until strongly concure (equal to five).

Egoism in this study is defined as an extent of which MSME consumer's motives in using their egoistic to improve their own welfare. Egoism character possessed by MSME consumers can be measured using some indicators, that is, professionalism, status and reputation improvement, getting reciprocity from others, getting prizes.

Altruism is defined as MSME consumers' willingness to help other individuals or company without expecting reciprocal result from anyone. Altruism behavior found in MSME consumers can be measured using indicators including: personal-experience sharing, helping the company, voluntarily, initiative, one who watered will himself be watered.

E-WOM Intention is defined as an intention to spread positive or negative statements made by prospective, real or past MSME shoppers about a product or an enterprise through Facebook. The indicators, as the measurement, including platform assistance, concern for the other costumers, helping the company, advice seeking, expressive positive feeling

Facebook PEOU is described as the degree to which MSME consumers sense ease of using Facebook. In this study, social media PEOU was measured using indicators, that is, ease of learn, ease of use, ease of understand, ease of remember, complexity, stress. Analysis of variables and indicators was done using PLS-SEM. There were two stages were made. First, calculating the outer model to test the validity and reliability (VNR) research. Second, calculating the inner model. In this stage, the proposed hypotheses would be developed into a research model and the validity would be tested as well. Multiple linear regression would be employed to identify whether or not the moderator variable truly gives an impact on altruism and egoism variable with e-WOM Intention. It aims to compare the score of R^2 in the equation I and II. If the upsurge of R^2 score is noticed, Z is proven as the moderating variable.

IV. RESULTS

The respondents are 73.9% women and 26.1% men, around 45.1% of respondents aged above 30 years old and mostly live in East Java (59.9%). There are 68.3% of respondents with High School /equivalent as their level of education, and 62% of them often have carried out the online shopping transaction 1-5 times in a month. Table I shows the respondents' description of this study.

TABLE I RESPONDENTS DESCRIPTION

Characteristics		Frequency	%
Age (years)	15- 20	8	5.6
	21- 25	34	23.9
	26- 30	36	25.4
	>30	64	45.1
	Total	142	100
Gender	Male	37	26.1
	Female	105	73.9
	Total	142	100
Education	Rudimentary School	2	1.4
	Junior High School	8	5.6
	Senior High School	97	68.3
	Diploma	3	2.1
	Under/Post-graduate	32	22.5
	Total	142	100
Domicile	East Java	85	59.9
	Central Java	15	10.6
	West Java	12	8.5
	DKI Jakarta	20	14.1
	North Sumatra	1	0.7
	South Sulawesi	4	2.8
	Others	5	3.5
Total	142	100	
Online Shopping Intensity (in a month)	1-5 x	88	62.0
	6-10 x	37	26.1
	Never	17	12.0
	Total	142	100

To test the VNR of the research instrument, it is required to evaluate it by observing the score of Cronbach alpha greater than 0.7, composite reliability should be greater than 0.7, and AVE greater than 0.5, and it should be employed in all constructs in order to get a good validity and reliability and those further testing can be carried out [30]. This is shown in Table II, of entirely scores of composite reliability and AVE score is above 0.5 and Cronbach alpha are above 0.7, which indicate that all constructs are found to be valid and have a good reliability.

The next step is to identify the loading factor score, which all scores of all indicators should be more than > 0.6 . in order to know that all indicators have already met the standard. Based on data analysis, all indicators have loading factor score

greater than 0.6 and it means that all indicators are fitted for the subsequent testing.

TABLE II VALIDITY AND RELIABILITY TEST OF THE RESEARCH INSTRUMENT

	AVE	Composite Reliability	R Square	Cronbachs Alpha
X1	0.750903	0.937212	-	0.937036
X2	0.746899	0.936393	-	0.915054
Y	0.706986	0.923210	0.739890	0.897262
Z	0.767251	0.923218	-	0.903481

X₁: egoism; X₂: altruism; Y: e-WOM ; Z: PEOU

The next process is checking the feasibility of discriminate validity, which can be noticed by the AVE score of each construct that should be more than other construct variances. Based on the data processing analysis, all indicators have the loading factor score more than 0.6 and it means that all indicators are fitted for the subsequent testing. Furthermore, the AVE score from discriminate validity table is higher compared to other variable variances, that is, 1.00. Thereby, it can be deduced that the AVE score in each existing construct has met the criteria.

After measurement model testing has been carried out and the result has met the standard, the next stage is testing whether PEOU variable moderates the relationship between altruism and egoism with e-WOM. It is done by comparing the score of $R_{II}^2 > R_I^2$.

TABLE III R SQUARE OF EQUATION I

	R Square
X1	-
X2	-
Y	0.361727

Based on Table III above, it reveals that the R score in equation I is 0.362, with $Y = - 0.117 X_1 + 0.637 X_2$. It means that if there is one-point increase of egoism, the effect to e-WOM will be declined 0.117. When there is one-point increase of altruism, the effect to e-WOM will also increase 0.637. Here, this study is able to predict e-WOM on MSME Facebook 36.2%.

After testing the effect of egoism and altruism in e-WOM, the next step is finding the R_{II}^2 score, which R_{II}^2 score should be greater than R_I^2 . It can be seen from Table IV that R score in Equation II is 0.759, with $Y = 0.160 X_1 + 0.713 X_2 + 0.201 X_1 \cdot Z + 0.666 X_2 \cdot Z$. This has meaning that when there is one-point increase in egoism score, the effect to e-WOM will also increase by 0.160. If there is one-point increase of altruism score, the effect to e-WOM will increase by 0.713. If the moderating effect influences egoism and e-WOM, e-WOM score will increase by 0.201. As well as moderating effect in altruism and e-WOM, e-WOM score will increase by 0.666. It can be noted that this study is able to predict e-WOM in MSME Facebook with the moderating effect is 75.8%.

TABLE IV R SQUARE OF EQUATION II

	R Square
X1	-
X1 * Z	-
X2	-
X2 * Z	-
Y	0.758780
Z	-

After finding the score of R_I^2 and R_{II}^2 , the conclusion that can be drawn is the role of technology acceptance with Facebook PEOU is proven to moderate the motivation factors of knowledge-sharing activity towards the information-sharing intention in social media. It is noticed that the score of $R_{II}^2 0.758 > R_I^2 0.362$. The score of R square is categorized strong if the score is above 0.67 [34]. In this study, the score of R square is 0.759; therefore, the moderate result in this study is interpreted strong.

Based on the hypotheses testing of PLS analysis bootstrapping in Table V (four hypotheses) are in the following $H_1 = 0.504544$; $H_2=2.179310$; $H_3=1.984174$ and $H_4=2.505895$. Thus, from four hypotheses, three hypotheses H_2 , H_3 and H_4 are accepted, while H_1 is rejected.

TABLE V THE RESULT OF HYPOTHESES TESTING

Hypothesis	Coefficient	t-table	t-statistic	Results
H1	0.159596	1.9777	0.504544	H1 rejected
H2	0.712702	1.9777	2.179310	H2 accepted
H3	0.200556	1.9777	1.984174	H3 accepted
H4	0.665699	1.9777	2.505895	H4 accepted

t table = (Df = N-K) (142-4=137) sign level 5%)

V. DISCUSSIONS

In this study, the researchers are eager to seek the influencing factors and the impact of egoism and altruism on e-WOM. From the result of data collection and several testing, only one hypothesis proposed is rejected, the remains are accepted. Here are the following explanations.

The first analysis reveals that the motivation factor of egoism does not have impact on e-WOM intention. This proposition asserted that reputation is of paramount importance in distributing the information in social media and they tend to contribute more in the social network. That is, MSME consumers have not concerned about reputation or reciprocity from their participations in sharing the information in social media. They assume that reputation is not focal. They want to help others regardless of what they will get. The findings are quite interesting since it offers different vein from the previous research.

In the second hypothesis, it is found that altruism motivation has positive and significant relationship on e-WOM. This notion is parallel with [15] stating that altruism is able to motivate individuals to do certain actions. In a positive manner, altruism is considered as motivation factor for society to spread positive words about the products and services provided. Noticing the respondents' domicile of this

study is 60% of them living in Java, meanwhile for Javanese people, altruism is seen as a strong culture □willing to help without expecting the returns. They do this culture sincerely without any impetus at all. More, the consumers are fine regarding the cost and time spent and they set aside their personal interest in order to help others without expecting any reciprocity. They just want to do well to others.

Lastly, the third and fourth hypotheses show that Facebook PEOU is proven able to moderate the relationship between egoism and altruism with e-WOM. This study is aligned with the previous studies describing that social media PEOU moderates and has significant impact on the context of information and technology (e-WOM). Furthermore, from the data testing aforementioned, it reveals that more than 75% of respondents do not perceive difficult in using Facebook, thus, it can encourage their intention in establishing e-WOM.

VI. CONSLUSIONS AND SUGGESTINOS

From this study, it can be deduced that the intention to distribute e-WOM to MSMEs' consumers is more likely caused by altruism. They are glad and satisfied when they are able to help others in virtual world, such as Facebook, even they will sacrifice their time and cost to share information in Facebook. Although the positive relationship between egoism and e-WOM is not found, but the moderating role of technology acceptance makes the consumers happy in demonstrating sharing activities in Facebook, leading to motivate them to distribute e-WOM. This fact is because the consumers assume that reputation is not something crucial and egoism has more impacts in real activities. Nonetheless, they are still willing to post in social network website as they think it is easy to use Facebook. Hence, this PEOU factor has influence on the intention of information-sharing motion in social media.

The outcome of this study empirically has strengthened the notion that altruism has important influence in individuals' intention, especially e-WOM. Whereas, if it is seen from managerial point of view, this finding can give information to MSMEs' participants, especially they who tend to use social media to understand more about factors motivating consumers, so they can optimize the role of e-WOM in promoting the products.

Future research should now focus on what can be done to other social media brands, such as, Catfiz, Facebook and many social media with MSMEs representing all cities in Indonesia. Thereby, the results can be widely implemented.

VII. REFERENCE

- [1] M. N. Al-Azam, M. M. Achlaq, A. Nugroho, A. G. Sooi, and A. Winaya, "Broadcasting the Status of Plant Growth Chamber using Bluetooth Low Energy," *MATEC Web Conf.*, vol. 164, p. 01029, 2018.
- [2] Jonathan Sarwono and A. H. K. Prihartono, *Perdagangan Online: Cara Bisnis di Internet*. Jakarta: PT. Elex Media Komputindo, 2012.
- [3] Andreas M. Kaplan and Michael Haenlein, "Users of the world, unite! The challenges and opportunities of Social Media," *Business Horizons*, vol. 53, no. 1, pp. 59–68, 2010.
- [4] David L. William, Victoria L. Crittenden, Teeda Keo, and Paulette McCarty, "The Use of Social Media: An Exploratory Study of Usage among Digital Natives," *Journal of Public Affairs*, vol. 12, no. 2, pp. 127–136, 2012.
- [5] APJII, "Infografis: Penetrasi dan Perilaku Pengguna Internet Indonesia Survey 2016," Asosiasi Penyelenggara Pengguna Jasa Internet Indonesia, Jakarta, 2016.
- [6] WeAreSocial, "Digital in 2017: Global Overview," 2017.
- [7] O. Hanteer, L. Rossi, D. V. D'Aurelio, and M. Magnani, "From Interaction to Participation: The Role of the Imagined Audience in Social Media Community Detection and an Application to Political Communication on Twitter," in *2018 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*, 2018, pp. 531–534.
- [8] Dilhan Öztamur and İbrahim Sarper Karakadilar, "Exploring the role of social media for SMEs: as a new marketing strategy tool for the firm performance perspective," *Procedia - Social and Behavioral Sciences*, vol. 150, pp. 511 – 520, 2014.
- [9] W. V. Siricharoen, "Social Media, How does it Work for Business?," *International Journal of Innovation, Management and Technology*, vol. 3, no. 4, pp. 47–479, 2012.
- [10] W. A. Kristiana, M. M. Achlaq, B. Anindito, A. Nugroho, C. Darujati, and M. N. A. Azam, "UUID Beacon Advertisements For Lecture Schedule Information," in *2018 5th International Conference on Electrical Engineering, Computer Science and Informatics (EECSI)*, 2018, pp. 270–276.
- [11] J. Newman, *Social Media for Internet Marketers: How to Take Advantage of Facebook, Twitter and Google+*. USA: Papaplus (e-book), 2013.
- [12] Hyun Shik Yoon and Linsey M. Barker Steege, "Development of a Quantitative Model of the Impact of Customers' Personality and Perceptions on Internet Banking Use," *Computers in Human Behavior*, vol. 29, no. 3, pp. 1133–1141, 2013.
- [13] Fred Bronner and Robert de Hoog, "Vacationers and eWOM: Who Posts, and Why, Where, and What?," *Journal of Travel Research*, vol. 50, no. 1, pp. 15–26, 2011.
- [14] Molly McLure Wasko and Samer Faraj, "Why Should I Share? Examining Social Capital and Knowledge Contribution in Electronic Networks of Practice," *MIS Quarterly*, vol. 29, no. 1, pp. 35–57, 2005.
- [15] Setiawan Assegaff, "Pengaruh altruisme, reputasi dan balas jasa terhadap aktivitas berbagi pengetahuan akademisi pada komunitas virtual: Studi kasus group Facebook Dosen Indonesia," *Jurnal Manajemen Teknologi*, vol. 4, no. 2, pp. 173–186, 2015.
- [16] Christy M. K. Cheung and Matthew K. O. Lee, "What drives consumers to spread electronic word of mouth in online consumer-opinion platforms," *Decision Support Systems*, vol. 53, no. 1, pp. 218–

- 225, 2012.
- [17] Ehsan Hasanjanzadeh and Noorminshah A. Iahad, "Motivation factors of Positive eWOM for Universities through Online Social Networks," *Journal of Information Systems Research and Innovation*, pp. 133–139, 2012.
- [18] Ali Mansouri Kermanshahi and Hamidreza Asgari Dehabadi, "What Are Effective Factors that Drive Customers to Spread Electronic Word of Mouth in Online Spaces? (A Survey in Electronic Appliances Market of Iran)," *Asian Journal of Research in Marketing*, vol. 3, no. 5, pp. 93–105, 2014.
- [19] Q. Yan, S. Wu, Y. Zhou, and L. Zhang, "How differences in eWOM platforms impact consumers' perceptions and decision-making," *Journal of Organizational Computing and Electronic Commerce*, vol. 28, no. 4, pp. 315–333, Oct. 2018.
- [20] Muhammad Khairi Majid, Norhani Bakri, Nur Shazwani Laila Junaidi, and Rahmat Roslan Buang, "The Moderating Effect of Technology Acceptance Perspectives on the Formation of e-SQ and Service Satisfaction in Low Cost Carrier Airline," *International Journal of Management Science and Business Administration*, vol. 2, no. 2, pp. 41–47, 2016.
- [21] Fiona X. Yang, "Effects of Restaurant Satisfaction and Knowledge Sharing Motivation on eWOM Intentions: The Moderating Role of Technology Acceptance Factors," *Journal of Hospitality & Tourism Research*, 2013.
- [22] C. Daniel Batson, "Why Act for the Public Good? Four Answers," *Personality and Social Psychology Bulletin*, vol. 20, no. 5, 1994.
- [23] Peter Kollock, "The economies of online cooperation: gifts and public goods in cyberspace," in *Communities in Cyberspace*, Marc A. Smith and Peter Kollock, Eds. New York: Routledge, 1999, pp. 220–239.
- [24] F. D. Davis, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Quarterly*, vol. 13, no. 3, pp. 319–340, 1989.
- [25] Dini Fatmawati, Santirianingrum Soebandhi, and Agus Baktiono, "Pengaruh Relevance, Perceive Usefulness, Perceive Ease of Use pada Sikap terhadap Penggunaan Layanan Sistem Informasi e-Dishub Surabaya," *Kompetensi: Jurnal Studi Manajemen*, vol. 11, no. 1, 2017.
- [26] M. Featherman and M. Fuller, "Applying TAM to e-services adoption: the moderating role of perceived risk," presented at the 36th Annual Hawaii International Conference on System Sciences (HICSS'03), 2003, vol. 7.