
Building a sense of community through sport programming and special events: the role of sport marketing in contributing to social capital

Eric C. Schwarz

Division of Business and Management
Daniel Webster College
20 University Drive
Nashua, New Hampshire 03054, USA
Fax: 1-603-577-6548
E-mail: schwarz@dwc.edu

Abstract: The role of sport marketing in contributing to social capital is derived from the historical relationship of marketing methods and the social sciences. Examples can be found in psychology (attitudes, consumer behaviour, motivation, participation levels, perceived value, perceptions, satisfaction levels), sociology (ethics and morals, ethnicity, gender equity, globalisation, performance enhancement, politics, race, social class and setting, violence and deviance), economics (accounting, asset markets, consumption levels, investments in sport products, labour equilibrium, pricing) and anthropology (cultural identity, ethnography, history of sport, human development and movement, rituals). In addition, market research validates most of these activities and the advertising of sport is related to many of the creative arts.

The goal of this paper is to take a look at how marketing seems, in most cases, to have moved away from the social sciences into the business realm by bringing awareness to the historical relationship by articulating the role sport marketing plays in contributing to the social psychological concepts of 'social capital' and 'sense of community'.

Keywords: social capital; 'sense of community'; sport marketing; social sciences; sport programming; special events.

Reference to this paper should be made as follows: Schwarz, E.C. (xxxx) 'Building a sense of community through sport programming and special events: the role of sport marketing in contributing to social capital', *Int. J. Entrepreneurship and Small Business*, Vol. X, No. Y, pp.000-000.

Biographical notes: Dr. Eric C. Schwarz has been a member of the faculty within the Division of Business and Management at Daniel Webster College since 2000. Currently holding the rank of Associate Professor, he serves as the Programme Coordinator and is the Faculty Advisor for the Daniel Webster College Society for Sport Management. During the 2006-2007 school year, he was on sabbatical leave, serving as a Visiting Senior Lecturer and Research Fellow at the University of Ballarat in Australia. In addition to his numerous presentations and publications around the world, he is the author of 'Advanced theory and practice in sport marketing', published by Butterworth-Heinemann/Elsevier in February 2008.

Please verify highlighted text.

1 What are ‘social capital’ and a ‘sense of community’

Social capital is the concept that membership of a social group grants requirements, responsibilities, and benefits on individuals (Hawe and Schiell, 2000; Portes, 1998; Wall *et al.*, 1998). The types of social capital most commonly focus on three areas: involvement in social networks; engagement with others through informal, social activities; and memberships with a group, association, or organisation (Putnam, 2000). Social capital is dependent on a number of multidimensional and culturally specific factors centred on specific norms of behaviour, networks, and organisations that characterise a given setting, the people within that setting, and events that take place over time (Silva *et al.*, 2007). The ultimate goal of social capital is to enhance the quality of life as a result of positive outcomes through interactions with others. Social capital is a social science concept that traces its origins back to sociology and economics.

A sense of community is an experientially based concept that focuses on the interrelationship and interdependence of individuals in a specific setting (Schwarz and Tait, 2007). The most common type of community is based on geographic location, but may also include membership in a group, or individuals who share similar beliefs, behaviours, characteristics and/or values. Sense of community is difficult to pinpoint as it is an intangible concept, but it can often be interpreted in terms of other measurable terms. For example, the size of the community directly affects sense of community – an urban community is defined by its sub-communities, while a rural community literally defines the community.

Sport is any activity, experience or business enterprise that focuses on fitness, recreation, athletics or leisure (Pitts *et al.*, 1994). It does not always have to be competitive, and participants do not have to have specialised equipment or a set of rules (Parks *et al.*, 1998). In general, the term ‘sport’ is an all-inclusive term covering all aspects of the field, whereas the term ‘sports’ tends to involve a compilation of distinct activities. Many concepts, functions, and activities are an integral part of social capital and play a significant role in defining and developing a sense of community. Sport is one of the most recognisable contributors, but it is also important to recognise other event associated activities including festivals, arts, recreation, tourism, and leisure. However, prior to truly understanding how the sport marketing and management of these activities play a role in building a sense of community and contribute to social capital, we first must understand the historical foundations of community studies rooted in the extensive history of traditional sociology and the social sciences.

Please provide reference.

2 History of community studies

One of the earliest recognised and most influential studies was the Chicago School. Emerging from the University of Chicago, the body of work was two-fold. In the initial study during the 1920s and 1930s, researchers investigated urban sociology in terms of the urban environment by combining traditional sociological theory with ethnographic fieldwork. The second study, which took place after World War II, focused on utilising field research combined with symbolic interactionism. The researchers’ overall goal was gauge social relations in the city of Chicago by using the city as a social laboratory (Pfohl *et al.*, 2006).

Another significant investigation was the Middletown Studies of the 1920s through to the Great Depression. This was an in-depth series of three field studies that focused on the city of Middletown, Indiana as representative of a typical, small, urban centre. The goal of the studies was to discover the most significant cultural norms, and hence better understand social change. The studies focused on the major aspects of social life including work, home and family, leisure time, government and community, and religion (Hoover, 1989; Lynd and Lynd, 1937; Lynd and Lynd, 1956).

There have been numerous other studies and theories developed since the Chicago School and Middletown Studies that have focused on various aspects of community life. Many of those studies focused on the concept of sense of community. One prominent theory was developed in the mid-1970s was that of Sarason's (1974) and his definition of psychological sense of community:

“the perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, and the feeling that one is part of a larger dependable and stable structure.”

Another theory was presented by Gusfield (1975) where community was classified as two dimensional: territorial and relational. Territorial focused on the physical location of the community whereas relational focused on the nature and quality of relationships. This was further elaborated upon by Riger and Lavrakas (1981) to be defined as physical rootedness and social bonding.

While these previous studies provided a foundation for understanding communities and building senses of community, the most widely accepted theory of sense of community is that of McMillan and Chavis (1986). They propose that sense of community is composed of four elements:

- 1 membership in the specific community
- 2 influence
- 3 integration and fulfilment of needs
- 4 shared emotional connectedness.

Membership in the specific community includes the concepts as boundaries (language, dress, ritual, *etc.*); emotional safety and security; a sense of belonging and identification, personal investment in the community; and a common symbol system (name, title, logo, landmark, *etc.*). Influence is where individuals believe they have influence in the direction of the community, and the belief that the cohesiveness of the community is a factor of having influence over the individual members. Integration and fulfilment of needs involves members of community being rewarded for their participation in relation to their needs, their desires, and what is valued by both the individual member and the community. Shared emotional connection is the most involved aspect of sense of community according to McMillan and Chavis (1986), as they articulated seven features of emotional connection that create a sense of community:

- 1 Contact hypothesis: the theory that the level of closeness between people is directly proportional to the level of personal interaction of members within the community.
- 2 Quality of interaction: the direct effect members of a community have on each other.

4 *E.C. Schwarz*

- 3 Closure to events: the concepts of reducing vague and unclear interactions to ensure that tasks are completed and ensure group cohesiveness takes place.
- 4 Shared value event hypothesis: creating group bonds as a function of a common event (not always positive in nature, such as a crisis).
- 5 Investment in the community: the level of involvement and the relationship to perceived importance of the community of individuals.
- 6 The effect of honour and humiliation on community members: the public appearance of individuals to other community members – if they have been honoured, they will feel more drawn to the community; if they have been humiliated, they feel less appeal to belonging to that community.
- 7 Spiritual bond: the most difficult feature to measure because it is often beyond a physical or emotional connection to a community – it can best be described as the transcendental belief of the community above all others.
 - An example might be someone who grew up in a rural town in the USA but now lives in a larger city such as Boston, New York, Chicago, or Los Angeles. Although they physically live in the community of the city, the individual always refers to being from that rural town, and always has a transcendental belief that they will always be a part of that rural community.

One of the most recent studies focuses on a theory of Community-based Enterprise (CBE). CBE involves a community acting cooperatively as both entrepreneur and enterprise in pursuit of the common good by creating and operating a new enterprise embedded in its social structure, and managing and governing in such a manner that strives to attain the economic and social goals of a community, resulting in sustainable individual and group benefits over the short and long term (Peredo and Chrisman, 2006). A significant foundation of CBE is the concepts of embeddedness and social networks, resulting in the creation of social capital. Embeddedness acknowledges that action is embedded in the structures of social relations (Razin, 2002), and social networks are community-based structures that are developed through investment strategies centred upon the institutionalisation of group norms and values, and the formalisation of networks (Misener and Mason, 2006; Portes, 1998). The resulting social capital comes from the reciprocal relationships embedded with the social networks (Misener and Mason, 2006). This dependence on social capital is central to building a sense of community because the community itself is often the major and most valuable asset of a CBE. This is because an effective community-based enterprise requires an availability of community skills, a multiplicity of community goals, and a realisation that success or failure is fully dependent on community participation (Peredo and Chrisman, 2006).

3 Relationship of sense of community and social capital to sport

As a result of the various community studies and research, sense of community seems to be a strong concept in the value and beliefs systems of societal members, and social capital is a major influence that builds senses of community. As related to sport, one of the major areas of study where social capital has been researched is through health promotion. In their article on social capital and health promotion, Hawe and Shiell (2000)

surmised that the concepts of power within social environments, building relational ties between members of communities, creating opportunities for empowerment and capacity building by individuals within communities, and working together to create 'healthy' public places and communities, are all the result of effective management of social capital. Sport, as an extension of health promotion activities, create connections between individuals and the networks, norms, and trust that arise from those connections (Griswold and Nichols, 2006; Putnam, 2000). As such, social capital as related to sport builds on three main areas: civic engagement, informal social engagement, and tolerance combined with trust (Griswold and Nichols, 2006).

Civic engagement means working to make a difference in the civic life of communities by developing the combination of knowledge, skills, values and motivation to make a difference. In addition, it means promoting the quality of life in a community, through both political and non-political processes. Individuals who are morally and civically responsible are recognised as being a member of a larger social fabric and therefore considered social problems to be at least partly their own. Members of communities who are civically engaged are willing to see the moral and civic dimensions of issues, to make and justify informed moral and civic judgements, and to take action when appropriate (Ehrlich, 2000). Informal social engagement is defined as continuous interactions that occur between individuals and groups as a result of a common association. The associations could be as a result of social networks, common interests, attendance at similar activities, or almost any situation that brings people together. Tolerance combined with trust is simply the concept of being able to accept the individual differences of people, communities and activities, while believing in the quality of the relationships created through social capital.

The ultimate goal of social capital is to enhance the quality of life as a result of positive outcomes through interactions with others. This is articulated in social capital theory, where it is hypothesised that individuals gain access to social capital through membership in networks and social institutions to maintain or improve their position within a specific community. Social capital theory provides an important conceptual framework between the attributes of individuals and their immediate social situation, and provides a link between social influences and developmental outcomes (Furstenberg and Hughes, 1995; King and Furrow, 2004).

The application of social capital theory can be articulated through sport programming and special events through the formation of specialised social networks. These specialised social networks are centred on three behavioural factors: socialisation, involvement, and commitment. Socialisation is defined as the process by which individuals acquire attitudes, values, and actions which are appropriate to members of a particular culture. In sport culture, we look at the process by which individuals develop and incorporate skills, knowledge, attitudes, and items/equipment necessary to perform sport roles (Schwarz and Hunter, 2008).

Socialisation in sport demands some type of involvement, which is defined as creating a close connection with something. Involvement in the sport culture is as easy as ABC – affective is the attitudes, feelings and emotions directed towards an activity; behavioural are the actions or reactions directly related to the internal and external stimuli an activity provides; and cognitive is the process of acquiring knowledge about an activity (Schwarz and Hunter, 2008).

Commitment is the process by which an individual is emotionally or intellectually bound to a course of action. In sport culture, commitment refers to frequency, duration, and intensity of involvement in a related activity. Programme and event managers must understand the thought processes of individuals it relates to concepts such as willingness to spend their valuable discretionary money, time, and energy (Schwarz and Hunter, 2008).

One of the most prevalent social networks integral to the operation of sport programming and special events, and hence is crucial to the building of a sense of community through these activities, is sport volunteerism. Sport volunteerism involves individuals who chooses to contribute their time, skills, and experience, for no payment (other than possibly reimbursement for out-of-pocket expenses), to benefit the community (Australian Sports Commission, 2000). In addition, people volunteer for personal satisfaction, because they want to help others and do something worthwhile, or they have a desire for involvement as a result of personal or family association (Australian Bureau of Statistics, 2007). As a result of this social network, there is a link between volunteerism and social capital. However, research (Harvey *et al.*, 2007) shows that existing relationships between social capital and volunteerism are related mostly to long-term volunteer involvement – individuals involved in short-term volunteering tends to emphasise the immediate advantages of this involvement rather than the long-term, intangible consequences. Therefore, long-term motivation and involvement is more likely to engage individuals in actions that contribute to the development of social capital (Harvey *et al.*, 2007).

Sport programming and special events serve an integral role in the development of community networks and social capital (Misener and Mason, 2006), which serves a role in the formation of regional identity, and expands the further development of social networks (Raagmaa, 2002). These expanded social networks then provide social support, self-esteem, identity, and perceptions of control (Cattell, 2001; Cohen and Syme, 1985), all of which are integral components to increasing the level of participation in social activities by individuals within the community setting (Cattell, 2001).

In order to build a sense of community as related to sport activities, social capital needs to provide the glue that binds the community together in collective action, and the gears to direct community members towards participation (Krishna, 2002). According to Misener and Mason (2006), this can be best accomplished by adhering to the following propositions:

- community values should be central to all decision-making processes
- various stakeholders, particularly community interest groups, should be involved in strategic activities related to events (*i.e.*, bid process, management, legacy)
- collaborative action should empower local communities to become agents of change
- open communication and mutual learning throughout strategic activities must be maintained to minimise power brokering.

So how do we move forward? One way is to take a look at foundational concepts inherent to the theory and practice of sport marketing.

4 The role of sport marketing in contributing to social capital

There has been a long tradition of communities using and devising [sport] activities as opportunities for social and commercial exchange (Picard and Robinson, 2006). The foundation for this social and commercial exchange is most often articulated through sport marketing and management efforts, especially through the mass media and via managerial performance. With regard to mass media, there are a number of issues that must be realised by communities when getting the message out about activities. First is the fact that there is currently a shift towards increased use of new media. Effective use of new media including multimedia, computer technology, and digital media is crucial to attracting the younger generation, but it is still important to continue utilising the traditional media outlet including print media (newspapers) and broadcast media (radio and television). This is defended by research that shows that older people are more reliant on the media medium they developed a connection with during their youth (Jung *et al.*, 2001; Shah *et al.*, 2001). Therefore older adults (55+) tend to be more reliant on print media, young and middle adult aged (25–55) adults gravitate towards broadcast media, and youth (under age 25) tends to get their information from the internet and other new media sources (Jung *et al.*, 2001). The failure to consider how people use media will likely lead to a lack of communication with community members, decrease participation in recreation and arts programmes, negatively affect the success of events and festivals, and decrease the level of sense of community.

In a study conducted by Schwarz and Tait (2007), the importance of communication to and from communities; facility, event, and programme maintenance and development; support for volunteers; and administrative expertise are integral to contributing to social capital, building senses of community, and the management of sport programming. Of these four areas, the biggest concern is communication. This is where sport marketing can play a significant role.

Regardless of the type of organisation or location, a lack of communication can only lead to problems. The design of an integrated sport marketing communications plan is important to articulate organisational goals with the philosophy, mission, and vision of the sport organisation. Those goals must be communicated to key target audiences in measurable terms through a list of objectives, which are the individual benchmarks that need to be accomplished and communicated to reach the goal. This includes contacting all members of the sport organisation (internal and external) through pertinent media outlets (print, radio, television and internet) and internal promotional opportunities (websites, bulletin boards, newsletters, and notice boards). These increased sport marketing communication efforts should not only increase awareness, but also increase the number of attendees and volunteers for sport activities. While the creation of an integrated sport communication plan seems like a complex and time consuming process, the benefits far outweigh the pitfalls. An efficient and solid integrated sport marketing communications plan will allow managers to spend less time trying to rectify problems, provide stakeholders with a greater awareness of events, and to more effectively build brand equity for each event.

Sport marketing efforts provides a means to gain a better understanding of the sport consumer through the efficient and effective application of sport marketing research efforts, the implementation of a sport marketing information system, and the evaluation of sport marketing behaviour. This information is then utilised to deliver sport

programming and special events through sport marketing logistics, including sport product and service management, sales management, and purchasing and supply chain management. Getting the information out about sport programming and special events is implemented through promotions, advertising, and sponsorship.

While many of these sport marketing efforts can provide a positive contribute, problems can arise that impact the growth of social capital and negative affect the development of senses of community. These issues include the struggle by sport organisations to utilise the knowledge of customers acquired through sport marketing efforts to position their brands, their inability to put their brands to work beyond the traditional media, and the failure to create brand acceptance and understanding throughout the individual sport organisation.

5 Recommendations and suggestions for future research

Research shows that sport-related events and activities do contribute to social capital and a sense of community (Schwarz and Tait, 2007). However, as noted in the review of literature, to truly understand whether an activity contributes to a sense of community, you would have to either be a part of that community, or be engaged with that community. This has been most often achieved as a result of marketing research via field studies. While field studies seems to be most effective, they are often cost and time ineffective because:

- the amount of time needed to engage with a specific community is high
- the number of locations that could be researched domestically, internationally, and globally is endless
- the number of researchers needed to accomplish the necessary research can be boundless.

This is great news for researchers since there seems to be a limitless opportunity to conduct research – as long as they have the resources available. Each additional study connecting the relationship between social capital and the concept of sense of community further advances this unrepresented area of sociological research as related to sport marketing and management. These marketing research opportunities can focus on a multitude of areas including analyses of demographics, geographics, psychographics, and socioeconomics; cultural diversity, accessibility, and infrastructure availability assessments; and economic impact studies. In addition, sport marketing and management consultancies focusing on facility, event, and volunteer management; and marketing plan development and implementation, can further advance the information available to determine the level of sport programming and special events desirable to contribute to social capital and build a sense of community.

6 Conclusion

The history of marketing, and hence sport marketing, is grounded in sociology and the social sciences. However, in many cases, marketing and sport marketing has moved away from the social sciences into the business realm. There are many opportunities to return

to this historical association to expand the scope of sport marketing beyond ‘traditional’ and ‘alternative’ sport. In addition, there are significant opportunities to expand into areas of ‘non-traditional’ sport-related activities including recreation, arts, festivals, and other leisure activities. The reality is that in order for these concepts to have a place in the mainstream foci of sport marketing, additional research, experiential learning projects, and service learning opportunities need to focus on enhancing social capital, building senses of community, and expanding the image of under-represented leisure opportunities.

References

- Australian Bureau of Statistics (2007) ‘Voluntary work, Australia’, [http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/C52862862C082577CA25731000198615/\\$File/44410_2006.pdf](http://www.ausstats.abs.gov.au/ausstats/subscriber.nsf/0/C52862862C082577CA25731000198615/$File/44410_2006.pdf) (retrieved 19 December 2007).
- Australian Sports Commission (2000) ‘Club development network – volunteer management module’, http://www.ausport.gov.au/clubs/volunteer_club_mngmt.asp (retrieved 13 February 2007).
- Cattell, V. (2001) ‘Poor people, poor places, and poor health: the mediating role of social networks and social capital’, *Social Science and Medicine*, Vol. 52, No. 10, pp.1501–1516.
- Cohen, S. and Syme, S. (1985) *Social Support and Health*, Toronto: Academic Press.
- Ehrlich, T. (2000) *Civic Responsibility and Higher Education*, Phoenix: Oryx Press.
- Furstenberg, F.F. and Hughes, M.E. (1995) ‘Social capital and successful development among at-risk youth’, *Journal of Marriage and the Family*, Vol. 57, No. 3, pp.580–592.
- Griswold, M.T. and Nichols, M.W. (2006) ‘Social capital and casino gambling in US communities’, *Social Indicators Research*, Vol. 77, No. 3, pp.369–394.
- Gusfield, J.R. (1975) *Community: A Critical Response*, New York: Harper and Row.
- Harvey, J., Levesque, M. and Donnelly, P. (2007) ‘Sport volunteerism and social capital’, *Sociology of Sport Journal*, Vol. 24, No. 2, pp.2006–223.
- Hawe, P. and Shiell, A. (2000) ‘Social capital and health promotion: a review’, *Social Science and Medicine*, Vol. 51, No. 6, pp.871–885.
- Hoover, D.W. (1989) ‘Changing views of community studies: Middletown as a case study’, *Journal of the History of the Behavioral Sciences*, Vol. 25, No. 2, pp.111–124.
- Jung, J.Y., Qiu, J.L. and Kim, Y.C. (2001) ‘Internet connectedness and inequality: beyond the “divide”’, *Communication Research*, Vol. 28, No. 4, pp.509–537.
- King, P.E. and Furrow, J.L. (2004) ‘Religion as a resource for positive youth development: religion, social capital, and moral outcomes’, *Developmental Psychology*, Vol. 40, No. 5, pp.703–713.
- Krishna, A. (2002) ‘Enhancing political participation in democracies – what is the role of social capital?’, *Comparative Political Studies*, Vol. 35, No. 4, pp.437–460.
- Lynd, R.S. and Lynd, H.M. (1937) *Middletown in Transition: A Study in Cultural Conflicts*, New York: Harcourt, Brace and Company.
- Lynd, R.S. and Lynd, H.M. (1956) *Middletown: A Study in American Culture*, New York: Harvest Books.
- McMillan, D.W. and Chavis, D.M. (1986) ‘Sense of community: a definition and theory’, *Journal of Community Psychology*, Vol. 14, No. 1, pp.6–23.
- Misener, L. and Mason, D.S. (2006) ‘Creating community networks: can sporting events offer meaningful sources of social capital?’, *Managing Leisure*, Vol. 11, No. 1, pp.39–56.
- Parks, J.B., Quarterman, J. and Thibault, L. (2007) *Contemporary Sport Management*, 3rd ed., Champaign, IL: Human Kinetics.

Please verify.

Please cite in the text or delete from the reference list.

- Peredo, A.M. and Chrisman, J.J. (2006) 'Toward a theory of community-based enterprise', *Academy of Management Review*, Vol. 31, No. 2, pp.309–328.
- Pfohl, S., Van Wagenen, A., Arend, P., Brooks, A. and Leckenby, D. (2006) *Culture, Power, and History: Studies in Critical Sociology*, Leiden, Boston: Brill.
- Picard, D. and Robinson, M. (2006) *Festivals, Tourism and Social Change – Remaking Worlds*, Clevedon, UK: Channel View Publications.
- Pitts, B.G., Fielding, L.W. and Miller, L.K. (1994) 'Industry segmentation theory and the sport industry', *Sport Marketing Quarterly*, Vol. 3, No. 1, pp.15–24.
- Portes, A. (1998) 'Social capital: its origins and applications in modern sociology', *Annual Review of Sociology*, Vol. 24, pp.1–24.
- Putnam, R. (2000) *Bowling Alone: The Collapse and Revival of the American Community*, New York: Simon and Schuster.
- Raagmaa, G. (2002) 'Regional identity in regional development and planning', *European Planning Studies*, Vol. 10, No. 1, pp.55–76.
- Razin, E. (2002) 'The economic context, embeddedness and immigrant entrepreneurs', *International Journal of Entrepreneurial Behaviour and Research*, Vol. 8, Nos. 1–2, pp.162–167.
- Riger, S. and Lavrakas, P.J. (1981) 'Community ties: patterns of attachment and social interaction in urban neighbourhoods', *American Journal of Community Psychology*, Vol. 9, No. 1, pp.55–66.
- Sarason, S.B. (1974) *The Psychological Sense of Community: Prospects for a Community Psychology*, San Francisco: Jossey-Bass.
- Schwarz, E.C. and Hunter, J.D. (2008) *Advanced Theory and Practice in Sport Marketing*, Oxford: Butterworth-Heinemann/Elsevier.
- Schwarz, E.C. and Tait, R. (2007) 'Recreation, arts, events and festivals: their contribution to a sense of community', *Rural Society*, Vol. 17, No. 2, pp.125–138.
- Shah, D.V., McLeod, J.M. and Yoon, S.H. (2001) 'Communication, context, and community – an exploration of print, broadcast, and internet influences', *Communication Research*, Vol. 28, No. 4, pp.464–506.
- Silva, M.J., Harpham, T., Huttly, S.R., Bartolini, R. and Penny, M.E. (2007) 'Understanding sources and types of social capital in Peru', *Community Development Journal*, Vol. 42, No. 1, pp.19–33.
- Wall, E., Ferrazzi, G. and Schryer, F. (1998) 'Getting the goods on social capital', *Rural Sociology*, Vol. 63, No. 22, pp.300–322.