Editorial for the FIU Review
By Dean Joseph West, Ph. D.

This issue fulfills the goal of the FIU Review to present articles concerning both theory and research in all areas of hospitality and tourism management. We begin by examining curricular and pedagogical issues concerning our field. Then we are delighted to look at future trends in the food-vending industry. We are pleased to have two articles covering strategy in the industry. One looks at the strategic success of our largest food-service corporation while another suggests strategies to manage and make the most of the recent trend toward banning smoking in casinos.

This issue of the Review also highlights the tour and travel industry. How tourists search for and select travel-related services is an issue of concern to the tour and travel industry. We probe this timely issue in one article while another article analyzes websites from two major tourist destinations and suggests ways of making them more user-friendly.

The issue concludes with articles on how to increase innovation within our industry and on the possible link between service quality and customer loyalty.

I urge researchers in all fields of study to submit their work for consideration. We want to encourage both quantitative and qualitative research in our field and especially wish to provide a publishing opportunity for researchers beginning their academic careers. Send manuscripts to our editor, Professor Marcel Escoffier for prompt review and consideration.

Sincerely,

Dean Joseph West, Ph. D.
Publisher
Editor's Remarks
By Marcel Escoffier
Associate Professor
School of Hospitality & Tourism Management

This has been a real learning experience for us. After much painful experience, sleepless nights, and more than the usual stress, we present this, our first edition as editor of the FIU Review. Things that we have learned along the way include:

- Authors have many unique ways of expressing themselves; some of these ways do not conform to standard English grammar or syntax.
- Blind review is a process of getting a commitment to review a paper, sending a copy of the paper (usually two or three times), and then harassing the reviewer for their review. Had we wished to do this last procedure as frequently as was necessary, we would have become a bill collector!
- Getting a publication ready so that the printing minions can do their work is a long, tedious process. Since they have yet to commit this editorial to print, we will demur and not go further into this aspect of publishing a journal.
- But, on the bright side, we have had the pleasure of meeting some very wonderful authors, possible authors, reviewers and even two very helpful people in the publications department.

We are concerned, however, that potential authors have an opinion concerning what we will publish that varies with reality. Let us restate a few of the criteria for submission:

Criteria for Submission
[Further details are located in this publication]

- The article must be original work, not otherwise published elsewhere. Articles may be based on presentations made at conferences or other venues, but any work that has been published, either in a trade publication, conference proceedings, or as part of a larger work (such as a book) will not be considered for publication.
- Articles may be wholly theoretical discussions, or, empirical research using quantitative analysis (the usual business school research methodology), or, results of research done using qualitative analysis. Let us emphasize this last
item: qualitative analysis is considered by us to be a legitimate research methodology and will be given full and thoughtful consideration. Should a reviewer object to the use of qualitative research methodology, the editor will re-submit the paper for review by someone who is more comfortable with this relatively new research tool.

- Please use standard business English. If possible, run your paper through an American dictionary so that the spelling does not confuse our review and editorial staff.

- It is wise not to reveal who the subjects in your research are by naming the hotel, restaurant, etc. If you do use specific names in your paper, be absolutely certain that you have their permission to do so. We will assume that you have obtained their permission for use in your paper.

- Please be sure to conclude with a brief discussion concerning the generalizable implications of your research. If your research results are meaningful only for a specific hotel or one cruise line, for example, and other hotels or cruise lines would not find your research of any use, we are inclined not to publish your paper.

- We encourage you to include a sentence or two in your paper concerning possible future trends which may influence a reader’s understanding of the relevance of your findings. In other words, tell the reader, “So what”. Why should the reader feel that his or her time was well spent reading your paper.

Finally, we ask that you, our reader, send us your comments concerning a considered change in citation format. We wish to convert to the APA style of citation, as used by most research publications. Our journal is nearly 25 years old, and the swing to the APA style that began as a mere trickle then is now a torrent.

As always, we encourage your comments in the above referenced topic or any other ideas, suggestions, or criticisms which you may have. We may be reached via email at: Marcel.Escoffier@FIU.EDU. Note that our university spam filters will usually reject emails with no subject, so the simple term: “FIU Review” in the subject heading will probably get your email delivered to us.
FIU Hospitality Review

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Unsolicited manuscripts (articles, essays, reprints, excerpts, book reviews, etc.), accompanied by a self-addressed, stamped envelope, may be submitted to FIU Hospitality Review, Florida International University, NE 151st St. and Biscayne Boulevard, North Miami, FL 33181 telephone 305-919-4590. See guidelines for authors.

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Guidelines for Authors

_The hospitality Review_ encourages submission of manuscripts on topics relevant to the hospitality industry. The following guidelines will assist authors in preparing articles for publication.

- E-mail submissions preferred. MS Word attachment. review@fiu.edu
- U.S. Mail submissions also accepted. Send to: FIU Hospitality Review, School of Hospitality and Tourism Management, Florida International University, 3000 NE 151 St., North Miami FL 33181. Printed manuscripts should be double-spaced in 12 point font. In addition, authors must include a diskette (3 1/2 inch), labeled with the author's name and the article's file name. Enclose two hard copies. Please use MS Word.

The article should
- provide a cover sheet with an article title and the name, title, school, address, telephone number and e-mail address of business affiliation of author(s).
- have a preface or abstract, usually two to three sentences, which summarizes the article. This is printed on the first page of the article prior to the body of the text.
- be written in the third person. The policy of _The hospitality Review_ is not to print first or second person articles.
- include no more than five tables, charts or exhibits, with a preferred vertical format which must not exceed 35 lines in depth and 40 characters in width so each can fit on a single page.
- authors should use the current APA style manual for references for citation purposes. The APA style concerning footnotes, citations and bibliographic notation are standards used in most refereed journals.
- range from 10 to 25 pages (2,500 to 7,000 words), with references and tables included.
- include major subheads within text; each should consist of a subject/verb construction and be short.
Theoretical analysis of “Academic credibility and the hospitality curriculum”: The image problem

By Babs L. Cole

Social issues are assessed from different perspectives. The purpose here is to evaluate one short article in terms of interpretive social theory and then briefly assess it in terms of functionalism, conflict theory and critical theory.

Interpretive theory constructed nature of social meaning and reality

Evans' notes the differences in perception regarding liberal arts education and training in "trades." The author believes that it is only proponents of liberal arts education who see education in applied knowledge as being less valuable than more general liberal arts education. He notes that those calling for greater concentration on liberal arts complain that other, more directly applicable forms of education are somehow less valuable in that they appear not to require students either to think or to learn to think.

Instead, they are seen as merely collecting facts that should be directly applicable to some situation in their chosen applied field.

A cornerstone of interpretive theory is to "understand how people construct and act upon meanings," and Evans' explores this aspect of the theory. He writes that those promoting the need for greater emphasis in liberal arts fail to recognize the study of the hospitality industry incorporates many of the topics and issues that those in liberal arts believe are necessary for a complete education. He notes that in academia, the "more 'applied' you are, the lower you are on the academic totem pole, and this is true in math, chemistry, nutrition, and even the liberal-arts area of theatre."

According to Evans, the view of more academic individuals is that in professional education "feel that if we teach skills, we do not teach values, ethics, concepts, or the appreciation of our culture." This simply is not true in professional education, of course, a fact that those with a more academic bent could see upon closer inspection. An example, economics is directly recognized as a social science; economic decisions of both businesses and households fall under the same heading of microeconomics.
The study of these two broad categories involves the study of values, ethics, concepts and cultural issues if they are to be understood in meaningful terms. Proponents of liberal arts studies likely are unaware that a subject such as economics can and does include such topics. Economists — and hotel managers — know them to be vital to understanding of the larger portion of the hospitality industry.

De Marrais and Le Compte write that these conditions and perceptions lead to the conclusion that "reality is not a priori given; it is based upon interpretations and it is constructed during interaction between and among individual actors." In short, the complaint of liberal arts proponents that professional education does not contain education in values, ethics, concept and culture reveals only that they do not have enough knowledge about professional education in the hospitality industry. Were the most vocal complainers more familiar with professional hospitality education, they would be more aware of the fact that there is increasing emphasis in all areas of business on values, ethics and concepts, and that a greater understanding of culture and cultural differences has become vital to professional success in the hospitality industry.

This point introduces the concept that reality "is not fixed but changes according to the actors and the context." Those devoted to philosophy can find a myriad of examples to consider in light of existing philosophical knowledge. Those faced with daily decision-making responsibilities often can benefit immensely from the philosophies of individuals such as Immanuel Kant and John Stuart Mill. Kant’s categorical imperative can guide decision making in that it defines the morality of a choice based on intent, rather than outcome. Mill’s version of utilitarianism defines the morality of a choice as being based on the concept of “the greater good.” Both of these philosophers not only inform ethical decision-making, they also are relevant even today in assessing social questions. As business is a social enterprise, so are Kant and Mill directly applicable to business-based decision-making.

Those promoting liberal arts education in favor of professional education are accustomed to seeing such philosophical education built into separate courses that consider only philosophy that has no specific goal. Those more attuned to professional education understand that working knowledge of the old philosophers’ theories can guide very practical decision making efforts.

Thus, reality for liberal arts proponents could be altered were they aware that nearly all business
Education today contains more than a passing wave at the old philosophers. Ethical operations in business are more important today than perhaps at any other time. Business people cannot operate under specific ethical principles unless they understand those principles.

**Self, roles, scripts, communication**

In liberal arts education, critical thinking is one of the most highly valued skills resulting from education efforts. The same is true in professional education, in that individuals must practice critical thinking skills daily, with the added requirement that they then act on the conclusions they reach as the result. Individuals in business often do not have the luxury of assessing a single point from every possible angle before being required to either reach some conclusion about it or directly act upon it. In this sense, it appears that those in professional education gain the more complete education. They learn not only the skills required in the practice of critical thinking, they also have the benefit of having self-correcting tests before them. In business, the manager who makes an incorrect philosophical assumption quite often misses the mark on what s/he is trying to achieve.

Communication is critical to liberal arts, and the same can be said for professional education, particularly in the hospitality industry. The liberal arts proponent will need to be able to convey ideas to others or risk being misunderstood or being dismissed as being irrelevant.

The practitioner, on the other hand, not only must convey thoughts and ideas to others, but also create an image for them that embody those ideas. If the businessperson fails, the business suffers.

Either worker misunderstands or customers do not grasp marketing communication intended to court them and to more fully know them. If the businessperson fails to communicate ideas effectively, then the livelihoods of many will be adversely affected.

In the case of interaction, the pure philosopher needs only to interact with himself. Philosophical discourse should have some point to it; otherwise, there is little reason to produce it. Again, professional education involves interaction as well, but on a more complex level.

**Micro level existence**

Another feature of interactive theory is that it focuses on the micro level, which is comprised of “individuals and small groups in interactions with each other.” Both liberal arts education and professional education in the hospitality industry are seen as being just that. Particularly those involved in liberal arts see...
promotion of liberal arts education as occurring with individuals and small groups. Those same individuals are likely to see business only as some large, faceless thing that is self-supporting and self-perpetuating. Nothing could be further from the truth, of course. Business succeeds through effective communications with individuals that have proceeded with significant critical thought activity. It fails for many reasons, but breakdown of internal communication is a common fault. The Ritz-Carlton hotels provide an example of the critical nature of effective communications both among coworkers and between employees and customers.

Former CEO Horst Schulze set the Ritz on a path that not only would win the company the Malcolm Baldrige National Quality Award, but also make it the first service company to do so. The physical facilities remained the same, and services that were in place remained. The greatest change in the management of the company was that it broke down the barriers to communication and promoted the near-mantra of “ladies and gentlemen serving ladies and gentlemen.” Management continually communicated to its “front line” workers — desk clerks, concierges, bell hops — that to guests, they were Ritz-Carlton, and that the success of the company hinged on how well these employees met customers’ needs. Proponents of liberal arts education value constructed meaning and its ability to change, yet the success of the Ritz since instituting its quality measures in the late 1980s stands as an example of constructed meaning that also has changed over time. The difference is that at the Ritz, that change positively affected the company’s bottom line.

As required by interpretive theory, changes and constructed meaning remains at the micro level. Evans speaks in terms of students, maintaining the requirement of communications between individuals or among small groups. In maintaining this focus, Evans also “seeks no connections to determinants in external, social structural variables.”

Social structures may change in response to changes in communications and interactions with individuals and small groups, but the nature of those interactions do not come about in response to external variables. Evans highlights differences in perspectives between liberal arts and professional education, but he makes no recommendation for any change aside from that of demonstrating (i.e., communicating to) proponents of liberal arts education the fact that professional education already contains several of the qualities that they claim it lacks.
**Functionalist theory**

De Marrais and Le Compte summarize functionalist theory as being too static, focusing "on order maintenance that justifies the status quo; conflict and change come to be regarded as aberrations." Functionalism emphasizes order and equilibrium, and it can be argued that Evans also provided this view in his article. The traditional view is that practitioners of any kind practice less critical thinking and analysis than do those more highly educated in liberal arts. Those promoting greater emphasis on liberal arts seek either to maintain the current level of attention to liberal arts education or to restore the level that existed in times past. From the functionalist perspective, Evans' article can be said to "identify social system components and to describe how systems work."

The key issue is that professional education appears to diminish liberal arts education's influence. The problem is that, if this position is true, then those in hospitality management programs are not learning critical thinking and philosophical analysis skills. This is not the case, of course, as described in an earlier section. If liberal arts education has changed, it has not been the availability of professional education that has changed it.

**Conflict theory**

Assessed from the perspective of conflict theory, Evans' article can be said to have application in terms of this theory as well. One of the qualities of conflict theory is that it "does not define explicitly what constitutes conflict." Evans does define some situations that are pointed to as being sources of conflict, but closer inspection reveals that they are not. Though Evans describes the difficulties that proponents of liberal arts education has with professional education, the nature of their complaints could be solved with closer scrutiny of what constitutes professional education in today's environment.

Some want to create conflict in claiming that certain aspects of liberal arts education are missing from professional education, but Evans demonstrates that these individuals are only mistaken. There is no real conflict present, only a misunderstanding.

**Critical theory**

The goal of critical theory "is to unmask sources of oppression, to promote understanding of causes and consequences of oppression, and to encourage participation in liberation." As such, the goal of critical theory is far beyond the scope of the educational image problem that professional education has in the minds of liberalists. There is no oppression here, and no necessary
liberation efforts to participate in aside from arguing that professional education is still education and incorporates many of the topics of liberal arts.

The issue of professional education's image certainly can be argued from the vantage of critical theory, but such is not a legitimate use of the theory.

Conclusion
Examining this single article in terms of various social theories highlights the necessity of applying appropriate theory to social issues. Evaluation in terms of interpretive theory is justifiable and valid; the same nearly can be said of conflict theory though its application here stretches its meaning. Functionalist and critical theories are best left to other topics.

References
12. H. Schulich, "What makes the Ritz the Ritz?" (Quality Customer Service at Ritz-Carlton Hotel Co.) Across the Board 31, p. 58.
13. "Ritz Carlton’s Visionary Steps Away"
International education:
Feedback from participants

By Hubert B. Van Hoof

Hospitality management students who participated in study abroad programs were asked why they had decided to study abroad, why they had selected a particular institution, how their home institution compared to the partner institution abroad, and what they perceived to be the benefits and relevance of their international experiences. The author found that respondents were generally very positive about the study abroad experience.

Educators and administrators involved in study abroad programs are constantly searching for the holy grail of international education, the perfect study abroad experience. Many have studied and written about the value of an international experience in higher education, and generally it was found that a mandatory or optional international component in a four-year program of studies is of benefit to our students, not only for developmental and educational reasons, but also because it helps them adjust to the challenges of life in the workplace once they leave college.1

What does the perfect study abroad experience look like? First, students must have the ideal academic experience. This means not only that they acquire relevant and up-to-date knowledge in the subjects of their choice, but also that there is a perfect fit between what they study abroad and what they are taught at their home institutions. Credits should transfer easily because the host institutions abroad teach what their syllabi say they are supposed to teach, and contents abroad need to be comparable to course contents at home institutions.

Second, students should have the perfect personal experience, one that enriches them, and helps them mature. If they can handle life as an exchange student at an institution abroad, and deal with the inevitable hurdles while living in another country and culture, they can deal with any challenges in their future careers as general managers, marketing directors, controllers, or food and beverage directors.2

Students should have the perfect cultural experience. They should come back as culturally sensitive individuals.
who will not only to survive in an increasingly multi-cultural environment but flourish in it too. They should be familiar with people of different race, color, language and beliefs. They should be able to consider things from multiple perspectives, and, more than anything, they should be tolerant and appreciative of diversity related issues in the workplace.

Students should have the perfect social experience. Housing at the host institution should be arranged ahead of time, and should reflect the needs and wishes of our students. They should have many friends while abroad, and come back with life-long contacts around the globe so that they always have a place to stay no matter where they travel later on in life. They should travel and see something of the world first hand, while learning from the experience.

None is perfect

Unfortunately, however, this holy grail of international education has not been found yet, and students will probably never have a perfect, flawless experience. Some might argue that the experience should not be flawless, as students learn from overcoming challenges, yet, the effort is made to improve the experience every semester, not only for the students who leave home to go abroad, but also for those who come from other countries.

There is also the attempt to find new ways of enticing students to study abroad, including finding new exchange partners in new countries, or offering semester programs, year-long programs, double degree programs and international internships. Faculty are sent abroad, and international faculty come and teach in the U.S., all in an effort to make international programs as appealing as possible.

Course evaluations generally conducted at the end of the semester, are an attempt to make courses better and more relevant to students. The input received is of vital importance to faculty, in that it helps them determine what worked and what did not, at least according to the students. The results of the evaluations are also important to programs in general, as they provide administrators with information on the effectiveness of their entire faculty, on how a program prepares students for life after school, and on how courses relate, interconnect, or overlap.

Evaluations can help

Study abroad programs can benefit from student evaluations just as much. The information obtained from asking study abroad participants about their experiences will tell how these programs fit in with academic missions, provide additional information that is vital for the long-term success of international efforts,
show how relevant students felt the experience was to their personal development and their careers, and indicate how close the experience is to being a perfect one.

This study was designed to solicit student feedback on the study abroad programs at Northern Arizona University (NAU), in a format reminiscent of regular course evaluations. Its specific intent was to investigate what students saw as the biggest benefits and challenges of the experience, why they decided to go abroad, how the education they received abroad compared to that at their home institution, and what the relevance of the experience was to their personal and professional development.

The survey which provided the data for the study was conducted during the months of March, April, and May 2003. The population included all the hospitality management students who had participated in study abroad programs during the period of January 2001 to May 2003. Included were students who had left NAU to study at a partner institution abroad as well as those who came to NAU from a number of foreign countries and partner institutions. Not included were international students pursuing a four-year degree at NAU. Personal information (name and e-mail address) of these students was obtained from the database of students at NAU’s International Office.

The questionnaire was designed to gain insights into the perceptions of students about their study abroad experiences in order to provide administrators and faculty involved in these programs with information that could help them in creating better programs and more worthwhile experiences.

Web survey used

A web-based survey format was used so it could be distributed to a large target audience at a much lower cost and more quickly than a traditional mail survey. Moreover, data collection and conversion could be done automatically, and the target audience could be encouraged to participate by means of a personal e-mail message. The most important benefit, however, was convenience for both respondents and researchers. It was felt that the respondents in this particular age group would be more likely to respond to an electronic format than to any of the other more traditional survey tools. An important concern about web surveys is their low response rate. Yet in this case, the population under study was relatively small, and it was anticipated that these students would be interested in sharing their opinions about their international experiences.

The questionnaire was a four-page, self-administered instrument. It was
estimated that it would take respondents about 10 minutes to complete.

In the first part of the survey respondents were asked to provide basic demographic information, including gender, the country where they had studied and the institution they had studied at, academic status (freshman, sophomore, etc.), major at the home institution and at the exchange institution, and the duration of their stay abroad.

The second part of the survey was divided into six sections and examined students' perceptions about their international experiences. In the first section, two questions asked them what their reasons were for studying abroad, and why they had selected the institution in particular. They were then asked to rate their exchange programs (as compared to their home institution) on a five-point Likert scale with regard to academics, care for their general needs as students, housing arrangements, and overall levels of organization and structure at the exchange institution as perceived by the student.

The third section examined what they liked most and least about their exchange institution, and what they perceived to be the main differences between studying at home and abroad. Three questions (once again on a five-point scale) in the fourth section asked them to rate the perceived relevance of their semester abroad to future job opportunities, their academic program at home, and their own personal development.

The fifth section contained four questions. The first two asked respondents if they would consider studying abroad again at the same institution, and if they would study abroad again at another institution if it were possible. After that, they were asked to rate the quality of the academic program abroad specifically, and the overall study abroad experience in general. The final section asked them to describe the greatest benefits and challenges of studying abroad. This was done in an open-ended format.

On March 7, 2003 a letter signed by both the director of the International Office at NAU and the researcher was sent to all 136 incoming and outgoing hospitality management students in the database of NAU’s International Office who had participated in an exchange program during the January 2001 to May 2003 period. In the letter the students were asked for their cooperation, and directed to a website which contained the survey. One week later, 26 respondents had completed the survey online. On March 24, 2003, a reminder was sent out to non-respondents. The website was kept open until the end of the spring 2003 semester, May 9, 2003. At that
time, a total of 48 students had responded to the survey, a 35.29 percent response rate. Given the concern that web-based surveys generally tend to generate a low response rate, this was deemed a good result. All analyses were done using SPSS 11.0.

**Limitations exist**

The main limitation to this study is that it was based solely on a database of students at one school at one university. All the incoming students studied at the School of Hotel and Restaurant Management at Northern Arizona University and all the outgoing students went to the institutions that were part of the international network of the school. Opinions, therefore, say more about Northern Arizona University and its foreign partners than about other universities and their partners, and the results cannot be generalized beyond the scope of the study. They might, however, be indicative of student opinions across the U.S.

A second limitation was the small size of the sample, which was attributed primarily to the small population from which it was drawn. Finally, there was the issue of the quality of the academic e-mail addresses since as students move on in their careers, their e-mail addresses expire or messages are never read.

**Varied reasons listed**

Of the 48 students who responded to the survey, 33 (68.8 percent) were female, and 15 (31.2 percent) were male. These numbers are reflective of a trend observed in international education, where females in these kinds of structured programs tend to outnumber males by a considerable margin. Fourteen students (29.2 percent) were incoming from Belgium, China, Germany, and the Netherlands, and 34 (73.8 percent) had studied at universities in Australia, Germany, Mexico, the Netherlands, Spain, and the United Kingdom. These locations were primarily driven by what was available in the school's international exchange network, although several students indicated they had found their country and institution of choice through USAC.

Most respondents were either juniors (25. percent) or seniors (66.7 percent), reflecting a common trend not to send students abroad too early in their academic careers. Finally, 29 respondents (60.4 percent) had studied abroad for only one semester, and 19 (39.6 percent) had been abroad for two semesters or longer.

In the first section of the survey, respondents were asked why they had decided to study abroad, and were requested to rank a number of distinctly different reasons in order of importance. The three most
important reasons for studying abroad in general were as follows:

- It is/was a good opportunity to travel;
- It is/was a good opportunity to live in another culture;
- I liked the country my exchange program was located in; it could be used as part of my degree program (tie).

When asked why they had selected a particular institution abroad, the three most important reasons were as follows:

- It was available as a partner at my home institution;
- I liked the country it was located in;
- People I know also went there.

Home, host compared

In four questions the survey then asked respondents to compare the institution they had studied at abroad to their home institution in the areas of academics, care for their personal needs as a student, housing, and organization/structure. They did this on a five-point Likert scale, with 1 being "Much Worse/Much Easier," 3 being "Same," and 5 being "Much Better/Much More Difficult."

Half the respondents, regardless of their origins, felt that the academic program they had participated in abroad was more difficult than the program at their home institution; 17.4 percent felt that it was the same, and 32.6 percent considered it easier or much easier. The mean rating of 3.15 was close to the middle of the five-point scale.

In terms of the care they received for their personal needs (such as staff availability, academic advising, and counseling for instance), respondents were considerably less impressed with their host institutions abroad; 17.4 percent of respondents rated it as much worse, 26.1 percent felt it was worse, and 23.9 percent felt it was the same. Only 10.9 percent rated it as better, while 21.7 percent thought it was much better than the care they received at home. In this case the mean rating was 2.93.

Housing abroad is always a major concern for students and their parents/caregivers. The overall sentiment was that housing arrangements abroad were slightly better than they were at home, with 50 percent of respondents feeling that the housing arrangements at the institutions abroad were better or much better than at home; 15.9 percent stated they were the same, and 34.1 percent felt they were worse or much worse than at their home institution. The mean rating of 3.18 reflected these generally positive sentiments.

Finally, when asked how they felt about the overall level of structure and organization at their exchange institutions as compared to their
home institution, the respondents were clearly least impressed; only 28.3 percent rated it as better or much better, while 21.7 percent felt it was the same, and half percent thought it was worse or much worse than at home. The mean rating of 2.70 was the lowest score obtained.

**Experience is relevant**

Three questions asked respondents to rate the relevance of their international experiences to future job opportunities, to the academic program they were enrolled in at their home institution, and to their own personal development. Ratings were on a five-point scale again, with 1 being “Completely Irrelevant,” 3 being “Relevant,” and 5 being “Extremely Relevant.”

When asked about the relevance of the experience to future job opportunities, 58.5 percent of the respondents rated it as very or extremely relevant, 36.6 percent as relevant, and only 4.9 percent as irrelevant (mean rating 3.80). With regard to the relevance of the international experience to their academic program at home, 46.3 percent of respondents considered it very or extremely relevant; 41.5 percent felt it was relevant, and 12.2 percent thought it was irrelevant (mean rating 3.54).

When it came to determining what the experience had meant to their personal development, the respondents were most enthusiastic: 58.5 percent considered it extremely relevant, 24.4 percent very relevant, and 17.1 percent relevant. Of interest here was the fact that none of the respondents felt that the experience was irrelevant to their personal development. This enthusiasm was reflected in the mean rating of 4.41.

**Students will do it again**

Under the heading “Would you do it again?,” respondents’ opinions and feelings about their semesters abroad were further analyzed. They were first asked whether or not they would study abroad again at the same institution if it were possible. After that, they were asked if they would study abroad again at another institution. They were also asked why they would or would not repeat the experience.

A little more than half (56.4 percent) of respondents indicated they would study again at the same institution, and a large majority (79.5 percent) said they would study abroad again at another institution. This was a ringing endorsement for the study abroad experience, yet more so for the overall experience than for the institution they had studied at. A sampling of the reasons for not wanting to go back to the same institution included such comments as “courses are irrelevant,” “been there, done that,” “I got bored there,” “too unorganized,” and “I
would like to get a broader perspective and experience something new."

Some of the reasons why students overwhelmingly endorsed the overall experience rather than the individual programs were as follows: "the dynamics of an exchange teach you a lot," "I realize there are more opportunities now," and "my personal development was incredible, and I want to see more."

**Overall ratings are positive**

When it was time to ask for some overall assessments, respondents looked at the quality of the academic program they did abroad, and the quality of the experience in general, on a scale from 1 "Very Poor," 3 "Neutral," and 5 "Outstanding." As became apparent throughout all of the other questions, here again it became clear that the study abroad experience had had a much larger perceived impact on the students' personal development than on their academic careers. Whereas 58.9 percent of them rated the overall quality of the academic program they had participated in abroad as good or outstanding (mean rating 3.54), nearly all of the respondents (94.9 percent) felt that the quality of the overall experience was good or outstanding (mean rating 4.38).

**Differences do exist**

In order to determine whether any of the observed differences of opinion were significant or not, several means tests were used to compare the opinions of distinct groups in the sample. The study first looked at whether the gender of the respondent had any significant effect on his/her perceptions about the study abroad experience. As there were two separate groups based on the value of a single variable (male-female), and as the level of data provided by the questions using the five-point Likert scale was ordinal, this analysis was done by means of T-tests. In all instances, the null hypotheses assumed that the population means were equal, and the alpha level was set at .05. The study found no significant differences of opinion between male and female students about their opinions.

When the opinions of the incoming students were compared to those of the students who had studied abroad, some significant differences of opinion were found. A limitation here was that this grouping did not allow for a distinction among countries or institutions. A more detailed analysis of the data based on individual countries and programs, however, was deemed beyond the scope of this study.

The study found three significant differences of opinion between the groups (See Table 1). First, it was found that outgoing students (U.S. natives) rated the housing arrangement at their host institutions abroad significantly lower than the
incoming students. Second, incoming students rated the overall quality of the academic program they had studied at in the U.S. significantly higher than the outgoing students. Yet, outgoing students were significantly more appreciative of the overall experience than their incoming peers.

| Table 1: Effect of origins on perceptions: Incoming vs. outgoing |
|---------------------------------|---|-----|-------|---|---|
| Academic level of difficulty: Exchange program compared to home | I | 14 | 2.57 | .1158 | 1.360 | .250 |
| Level of care for your general needs: Exchange program compared to home | I | 14 | 4.64 | .633 | 2.344 | .133 |
| Housing arrangements: Exchange program compared to home | I | 14 | 4.00 | .784 | 7.430 | .009*** |
| Overall level of organization/structure: Exchange program compared to home | I | 14 | 4.50 | .650 | .732 | .397 |
| Relevance of semester abroad experience to future job opportunities | I | 14 | 3.42 | .996 | .001 | .970 |
| Relevance of semester abroad experience to academic program at home | I | 14 | 3.55 | .827 | .836 |
| Relevance of semester abroad experience to personal development | I | 12 | 4.08 | .793 | .003 | .959 |
| Rate the quality of the academic program abroad | I | 12 | 4.25 | .452 | .7975 | .008*** |
| Rate the quality of the overall experience abroad | I | 12 | 4.17 | .389 | 6.596 | .014** |

*Total N does not make 46 because of missing values for the variable
** Significant at the .05 level
*** Significant at the .01 level
Feedback drives efforts

In the search for the holy grail of international education, feedback from students who participate in exchange programs needs to be taken very seriously and should be incorporated in development efforts. Just like course evaluations at the end of each semester, surveys like the one discussed here provide valuable information on study abroad programs, information that can help create a perfect (if perhaps illusive) study abroad experience.

This study found that hospitality management students from Northern Arizona University who had participated in study abroad programs and their peers from abroad who had studied at the School of Hotel and Restaurant Management were generally very appreciative of the experience. Even though the reasons for studying abroad were more personal than academic (it was primarily seen as a good opportunity to live and travel in other countries and cultures, rather than a good academic experience), they felt that the experience also helped them in their future careers, and that it was relevant to their academic programs at home.

Of interest were the differences of opinion between incoming and outgoing hospitality management students. Students coming to the U.S. rated the quality of the academic program they were involved in significantly higher, while students going from the U.S. were significantly more appreciative of the quality of the overall experience. Almost all of the respondents said that they would study abroad again if it were possible, which is the best endorsement possible for these programs.

When students were asked what they considered to be the greatest benefit of studying abroad, the most common answer was that it gave them a better understanding of other cultures in that it presented them with a different perspective on other people and on life in general. Many respondents said that, while they learned about other cultures, they also learned more about themselves and that they appreciated their own culture more because of the experience. Many of them felt they had grown as persons, that they had become open-minded and well rounded, and that they had learned how to deal with adversity. In the words of one respondent: "I learned more about the way the rest of the world functions, and how I function outside of the U.S."

With regard to what was perceived as the greatest challenges of studying abroad, the predominant issue was one of adaptation, adaptation to different customs, cultures, food, teaching styles, academic standards and systems, pace of life, and a different language. Many also felt that
being away from friends and family, being pushed out of one’s comfort zone, and being alone was a challenge, as was having to cope with stereotypes that existed about Americans in other parts of the world. As one student put it: “My biggest challenge was being American, and having to deal with the ‘cowboy attitude’ the US has painted all over the world.”

Programs have merit

Administrators and faculty involved in study abroad programs are convinced that these programs have merit. A semester of studies abroad helps students become more mature, more independent, more appreciative of other cultures, and also more appreciative of their own culture. Yet, do students also know that? Only through immersion in other cultures, and through living abroad for a while, do they learn to appreciate the experience fully and reap the benefits it may bring them.

This study showed that the U.S. program was comparable to that of the foreign partners in the area of academic level of difficulty in the eyes of students, even though the way in which students in higher education are taught is very different from the way in which college-level students are educated in different parts of the world. In addition, U.S. housing arrangements are seen as better than housing situations in other countries.

Exchange students not only gain an appreciation for other cultures when they return, but also look upon their own culture in a more positive light. They are more aware of the value of their own academic programs and home universities after they come back as compared to before they left. They feel out of place when they return from their semester abroad, and at the same time they feel comfortable about being back in their familiar surroundings. They are sad that their international adventure is over, yet happy to be back; they are aware of the large world around them, and pleased to be back in their own small world. In a sense they have the best of both worlds.

References


Fresh food vending represents $1.5 billion in sales each year in the United States. The implications for a better understanding of fresh food vending are significant in terms of profitability and improved market share for vending operators. Of equal importance is a better understanding of the significance of the route driver on the overall fresh food vending operation. Developing a better understanding of this area of the food service industry will help vending operators increase profits and provide better product choices to consumers.

The National Restaurant Association (NRA) and the National Automatic Merchandising Association (NAMA) both have recognized that offering healthy food choices must be a priority for operators who provide food whether served at a table or through a vending machine. In 2004, NAMA announced a major public education campaign called "Balance for Life," which will educate and inform the users of vending services that the answer to obesity issues is for consumers to make healthy choices and for operators to offer more healthy choices.

At the center of this debate in the vending industry is the market for vended fresh foods. Some believe that the public needs to be provided with more choices when it comes to fresh foods; however, the reality in the vending industry is that fresh food sales declined by 2.6 percent from 2001 to 2002. Much of the decline can be attributed to the overall decline in vended products; however, vending operators continue to look at vending of fresh foods as a
means to gain a competitive advantage. Many operators are very proud and enthusiastic about fresh food offerings, while others prefer to focus on other product categories. The time is right for further investigation into fresh food vending.

**Operator's view explored**

This study was undertaken to examine fresh food vending from the operator's perspective. The goals of the research were to explore the types of foods being offered, the preparation of those foods, the use of branded products, prices, ordering and stocking procedures, promotions, and safe food handling policies. From December 2003 to January 2004, the Technical Services Department of NAMA and the School of Hospitality Business at Michigan State University conducted a fresh food vending survey designed to obtain preliminary results, in terms of baseline data, from operators of vending commissary operations. The intent was to establish this baseline with vending commissary operations in 2004 so that trends in subsequent years could be tracked.

**History dates to 1888**

While Thomas Adams' installation of a coin operated gum dispenser in 1888 New York City can be considered the beginning of the vending industry in the United States, it was the invention of the automat in 1902 and, more directly, the first refrigerated sandwich vending machine in 1950 that introduced the concept of fresh food vending to the public.²

The 2003 "Automatic Merchandiser State of the Vending Industry Report" defines the industry's product mix categories as cold beverages (27.6 percent); candy, snacks, and confections (23.0 percent); manual food service (27.8 percent); vended food (6.5 percent); hot beverages (5.1 percent); office coffee service (4.0 percent); milk (0.9 percent); ice cream (1.1 percent); cigarettes (0.6 percent), and other, which includes bottled water, sundries, games, and music (3.3 percent). The vended food market category mix includes fresh prepared foods (51.4 percent), frozen prepared foods (43.0 percent), shelf stable foods (5.1 percent), and other food system products (0.5 percent).³

Food products can be offered to the consumer in a variety of automatic merchandising methods including refrigerated machines, freezer-type machines, heated machines, ambient temperature machines, and food system machines (like French fry, pizza, or popcorn machines). Refrigerated food machines are the most popular, with over 77.2 percent, while frozen food machines account for about 20.6 percent of the mix, and the other types all account for less than 1 percent of the overall total.⁴

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3. Food products can be offered to the consumer in a variety of automatic merchandising methods including refrigerated machines, freezer-type machines, heated machines, ambient temperature machines, and food system machines (like French fry, pizza, or popcorn machines). Refrigerated food machines are the most popular, with over 77.2 percent, while frozen food machines account for about 20.6 percent of the mix, and the other types all account for less than 1 percent of the overall total.
The common feeling among many vending operators is that consumers are unlikely to spend more than $5 in a vending machine for food. This places pressure on vending operators to keep the price of vended food low enough to allow for other selections such as beverages and side items or snacks. Most operators concede that $2.50 is the maximum amount that can be charged for a vended food item, with the most common range between $2 and $2.25. A 2002 survey of vending operators reported average vended food prices of $1.80 for fresh prepared food, $1.64 for frozen prepared foods, and $1.42 for shelf stable foods.

Vended trends evolving

The most popular trend in fresh food vending is the use of branded food items, which help the operator sell more vended fresh foods due to the increased credibility the brand gives to the product in the mind of the consumer. There is also the possibility that consumers will be more likely to pay a little more for branded items than for generic items, although the higher product cost may cut into the operators' profits. In addition to branded food items, consumers are also following trends seen in the restaurant industry with preferences toward more ethnic foods and healthier food choices. Some vending operators have begun to specialize in Hispanic and Asian food items, while others are trying to capitalize on the low-carb and Atkins diet trend with low carb and Atkins-friendly vended foods.

Fresh food is primarily vended in manufacturing industry facilities and business and office buildings, with lower availability in hospital facilities and on college and university campuses, particularly commuter campuses. Because of the high cost of operating fresh food machines, the number of machines available in the market has fallen in the past several years; however, it is possible that newer machines are replacing older machines in more targeted locations.

Food safety is concern

A concern with fresh food vending is the need and responsibility for food safety and sanitation. There have been efforts toward educating route drivers and commissary workers on the need for safe food handling procedures. NAMA has developed a training video called “Transporting Perishable Food: Guidelines for Route Drivers” that was specifically developed to inform the drivers of the important role they play in delivery of safe foods to the vending machines. Different states have varying policies on how vended foods are regulated. For some states...
the local health department is the agency in charge of facility and machine inspections, while in others it may be the state agriculture department.

Another issue is the application of Hazard Analysis Critical Control Points (HACCP) procedures as set forth by the Food and Drug Administration in the Model Food Code. HACCP has become a part of the standard operating procedure for most food manufacturers and suppliers and is being implemented in the retail food service industry. However, HACCP's application to the vending industry has not been fully embraced by the industry. NAMA has been proactive in educating vending industry operators about the importance of food safety and HACCP; however, as noted by L. Eils in a May 2004 article, the last line of defense is the route drivers. Indications are that few of these people are certified in safe food handling, indicating more education and follow up needs to be done on the issue.

Survey is first of kind

The survey was mailed to 287 commissary operations, all members of NAMA; 40 surveys were returned, representing 14 percent of the original mailing. Respondents reported the number of fresh food products offered ranged from five to 400 items, with an average of 128. Frozen products offered ranged from one to 200, with an average of 57. When asked how many locations fresh food was vended from, responses ranged from six to 982, with an average of 188. There was more than one machine reported at 259 of the locations.

Companies responding reported they had between 11 and 1,900 accounts, with an average of 411. With an average of 188 locations for 411 accounts, that amounts to about 46 percent of all reported companies with fresh food vending locations. The total number of vending machines reported was between 48 and 9,000 with an average of 2,077. On average, 259 of these machines were reported to be cold machines (12.5 percent); an average of 41 machines were reported as frozen product machines (1.97 percent), and a total of 21 hot-choice machines were reported in use by respondents (1.01 percent).

Respondents reported yearly vending sales averaging $12.2 million, with a range from $850,000 to $54 million. Total yearly sales of fresh foods ranged from $85,000 to $5 million with an average of $185,185.

Survey reveals issues

When asked who prepared the fresh food, 80 percent of respondents
indicated that preparation took place in their own commissary, while 20 percent said that the fresh food was prepared by a third party. Respondents were asked which fresh foods they sold in their vending machines. Table 1 indicates that of the seven categories indicated, the fresh foods vended were fairly evenly mixed. Sandwiches topped the list at 17 percent, followed by salads at 16 percent, and entrees at 15 percent. Both desserts and fruits were tied for fourth, with 14 percent each.

Table 1: Fresh food items vended

<table>
<thead>
<tr>
<th>Fresh Food</th>
<th>Percentage</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwiches</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>Salads</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Entrees</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Desserts</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Fruits</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Soups</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Vegetables</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Respondents were asked if they use pre-cooked products; 93 percent indicated that they did, while 7 percent indicated they did not. Pre-cooked products have built-in labor and require fewer labor dollars in the vending organization.

In terms of branded products, 88 percent indicated that they do use branded products. Most (62 percent) said that they use manufacture—branded products, followed by self-branded products (25 percent), and restaurant—branded products (13 percent). One might argue that branded products have more name recognition and, therefore, are more likely to be selected from a vending machine when a purchase decision is made relatively quickly.

Table 2: Forecasting fresh food usage

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past experience</td>
<td>31</td>
<td>1</td>
</tr>
<tr>
<td>Changes in customer's business</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>Weather</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>Computer forecasting</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Future trends</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Gut feeling</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Other (individualized expiration dates)</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Clearly, the top-ranked method of forecasting fresh food usage is past experience. (See Table 2). It is therefore essential that accurate records are kept, including both popularity and shelf life of these fresh products. The second-ranked method was changes in the customer's business. If this is to be an accurate way to forecast fresh food usage, it is critical for the vending organization to clearly understand their customer's business cycles and trends. The responsibility for machine-level ordering is presented in Table 3.
More than half the survey respondents rely on the route driver to do machine-level ordering. This leads to the question: How well are these drivers trained to effectively order? An additional question when it comes to fresh foods is: How well do route drivers practice safe food handling after this training? Fresh foods are different from shelf-stable vended foods (e.g., snacks, soda pop) in that they must be carefully controlled when it comes to time in the temperature danger zone (41°F to 140°F).

In a follow-up question about food safety, 80 percent responded that "their personnel are certified in food safety." What about the remaining 20 percent, and, specifically, the route drivers?

Ninety-five percent of respondents said they have a defined policy for the length of time that a fresh product remains in vending machines. (See Table 4).

While the FDA Food Code suggests a four-day shelf life for fresh foods properly stored, only 82 percent of the respondents responded that they follow the code's requirements.17 While 63 percent of the fresh food is removed within three days, 18 percent remains in the vending machines for five or more days. Perhaps this could be improved with food safety training, specifically for route drivers.

When asked what percentage of the overall vending revenue comes from fresh food, 65 percent said it was 10 percent or less. In fact, when one studies the responses, for 92 percent of the respondents, 20 percent of overall vending revenue comes from fresh foods. As a follow up, respondents were asked what their single greatest problem was related to fresh food. The top-ranked response was leftovers/waste (58 percent), followed by expense (39 percent). Together these two total 97 percent. The remaining 3 percent of problems were attributed to handling of food. It is interesting to note that, even though three other possible problems were listed (i.e., lack of customer demand, lack of adequate facilities, and lack of

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Table 3: Machine-level ordering

<table>
<thead>
<tr>
<th>Responsibility</th>
<th>Percentage</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route driver</td>
<td>54</td>
<td>1</td>
</tr>
<tr>
<td>Commissary manager</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>Driver's supervisor</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Computer program (based on usage)</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Number of days before fresh foods are removed

<table>
<thead>
<tr>
<th>Number of days</th>
<th>Percentage</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>21</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>19</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>
adequate machines), none of these were chosen by any of the 40 respondents.

**Interesting food mix found**

Given that the sample surveyed was primarily commissary operators, it was not surprising that the overwhelming majority of respondents prepared their own fresh food items for vending. The mix of food items was somewhat surprising because of the almost equal mix of sandwiches, salads, entrees, fruit, and desserts. Anecdotal evidence collected from operators indicated that sandwiches would be the clear leader of choice in fresh food vending. The equal mix could be an indication of more interest in healthy choice options being provided by operators as a reflection of changing consumer choices.

Some results were worth noting, however, including the response regarding the use of branded products. A survey of operators in December 2000 reported only about 20 percent of respondents thought branded food items were important in fresh food vending. This survey revealed that 88 percent of respondents indicated they use branded products. This may represent a direct reversal of thought and practice in fewer than four years.

**Route drivers are key**

Likely the most important observation to come from this study was the importance of the route driver’s responsibilities in the fresh food vending operations. According to the majority of operators, the route driver is responsible for machine level ordering. Because of this, the driver can be considered the “sole proprietor” of the vending machine, and as such is in charge of fresh food rotation and for the safe handling of the food products. This is an important fact since the majority of operators reported waste and leftover food as their greatest problem related to fresh food vending.

The findings of the pilot study established the baseline data covering fresh food vending. The researchers intend to survey commissary operators again in late 2005/early 2006 and compare the results. In addition, plans are underway to conduct a pilot study of consumers of fresh vended food products. There will be some comparative results that can be evaluated from both the standpoint of the commissary operators and the consumers.

**Future research is needed**

This study indicates the need for further research in three key areas. First, what are the reasons for and implications of the changing product mix in fresh food sales. Of interest is whether the changes are related to the consumer’s changing preferences or choices driven by the operator’s forecasting decisions.
A second area of future research is the increased interest in the use of branded products. Operators should investigate this change further to ascertain the reasons for the change in attitudes. Branding is an important trend to follow because of the impact it will have on the preparation of fresh foods in commissaries. If this is an expanding trend, then fresh food preparation could be reduced substantially in the future.

The third area of future concern is the role of the route driver in fresh food vending. There is a need to look at what the type of training that these drivers receive. Of interest should be the best practices and opportunities for training in areas such as ordering and marketing, as well as the use of the available materials on safe food handling procedures. Of additional interest is the impact of route driver training and continuing education on the profitability of fresh food vending.

As stated earlier, fresh food vending represents $1.5 billion in sales per year in the United States. Assuming an average vending transaction of $2.50, that translates into about 600 million products sold through vending each year. The implications for a better understanding of fresh food vending are significant in terms of profitability and improved market share for vending operators. Of equal importance is a better understanding of the significance of the route driver on the overall fresh food vending operation. Developing a better understanding of this area of the food service industry will help vending operators increase profits and provide better product choices to consumers.

References

3. Sanford.
7. Ibid.


Ronald F. Cichy is a director and professor and Jeffery D. Elsworth is an assistant professor in the School of Hospitality Business at Michigan State University; Larry M. Eils is a senior director of technical services at the National Automatic Merchandising Association in Chicago, Illinois.
Who shook Big Mac?: Panera Bread Co.

by Kyuho Lee and Melih Madanoglu

The authors identify the firm-specific core competencies that Panera Bread has relied on to achieve a competitive advantage in its business domain. The study illustrates how the company scans the dynamically changing environments and tailors their products and services in accordance with these changes.

The business environment in the restaurant industry has become increasingly competitive due to changing consumer preferences, an increased number of competitors, the presence of labor shortage, and the sluggish U.S. economy.\(^1\) As a result, both fast-food and full-service restaurant segments, which represent 60 percent of the $400 billion restaurant industry, have encountered several market challenges which affected the restaurant firm's bottom line.

In particular, the fast-food industry has been impacted most severely from the recent dramatic environmental changes such as growing obesity problems, competition, and food safety concerns related to mad cow disease across countries.\(^2\) Not surprising, the fast-food giant, McDonald's Corporation, a company that has been in business since the 1950, reported its historic first quarterly loss in January 2003. The magnitude of McDonald's loss was $343.8 million in the fourth-quarter of 2002 and was four times higher than the figure analysts predicted.\(^3\)

McDonald's loss demonstrated that the company failed to be proactive to a series of environmental changes affecting the fast-food industry such as increasing competition in the industry, growing consumer preferences for healthy foods, and mad cow incidents in Europe and Canada. Furthermore, the second largest fast-food chain, Burger King, shut down about 12 percent of its domestic outlets because of lagging financial results and fierce competition.\(^4\)

Fast-casual segment emerges

The stumble of some of the fast-food giants gave rise to a new segment, fast-casual, that capitalized on opportunities to meet changing consumer needs. Fast-casual restaurant chains have recorded robust sales growth.
ranging between 6 and 8 percent annually since 2000.\textsuperscript{3} Sales of the fast-casual segment are expected to reach \$35 billion by the end of this decade.\textsuperscript{6}

The fast-casual dining segment positioned itself between fast-food and casual-dining restaurants by offering high quality fresh food, a self-service format (no tipping), a comfortable atmosphere, takeout service, and fast service to customers.\textsuperscript{7} According to Perlik,\textsuperscript{8} the check averages of most fast-casual restaurants range between \$7 and \$10. Cosi, Café Express, Baja Fresh Mexican Grill, Au Bon Pain, Chipotle, Qdoba, and Panera Bread are some of the players in this segment.\textsuperscript{9}

\textbf{Panera gets attention}

Panera Bread has recently drawn considerable attention from Wall Street analysts by recording impressive financial results and achieving an astonishing growth among all publicly-traded restaurant companies.\textsuperscript{10} The company was ranked as the top national restaurant chain in the several restaurant food and customer satisfaction surveys. For example, \textit{Restaurants & Institutions} magazine awarded Panera Bread “Choice in Chains” based on consumer satisfaction and food quality. Also, Panera Bread was selected as the best restaurant among 118 restaurants in a national customer satisfaction survey of more than 71,000 customers conducted by \textit{Nation's Restaurant News}.\textsuperscript{11}

This study identifies the competitive strategies that enabled Panera Bread to succeed in the fiercely competitive restaurant industry and analyzes the firm's core competencies, demonstrating how these competencies are aligned with the firm's innovative strategies.

\textbf{Company expands}

Panera Bread was founded in March 1981 under the name of Au Bon Pain in Saint Louis, Missouri. Au Bon Pain was established as a bakery-café selling mainly bakery and cookies; its restaurants were located primarily in the urban downtown areas targeting white color office workers. In a move to penetrate suburban areas Au Bon Pain later acquired the St. Louis Bread Company in 1993, most of whose restaurants were located in the suburban areas.

The firm sold the Au Bon Pain division and changed the corporate name to Panera Bread in 1998; the CEO of the Au Bon Pain, CEO Ron Shaich had to sell the debt-lagging unit in order to grow Panera Bread, which had been developed based on the former St. Louis Bread. One of the major reasons for the sale was that Au Bon Pain had several market challenges due to its urban locations, which detailed high fixed operation costs and high competition in the most of urban areas.\textsuperscript{12}
areas. This resulted in severe undercapitalization problems to the firm. Furthermore, Au Bon Pain could not maximize its asset productivity by limiting its operation to weekdays since its major target markets were white collar office workers.

**The growth of Panera Bread**

Panera Bread is expanding quickly across America, currently operating 602 bakery-cafes (173 company-owned and 429 franchised) in 35 states. Strong bakery-cafe performance fueled new-unit growth, enabling Panera Bread to open 115 new bakery-cafes in 2002 (23 company, 92 franchises). According to the company's annual report the bakery/cafe firm is expected to open 140 new units in 2005.

The strategic decisions made by Panera Bread's management are reflected in the firm's financial indicators. Panera Bread's strong performance at the bakery-cafe level drove significant growth in corporate revenue and earnings, the firm recorded system-wide sales which were reaching $755 million in 2002. This denotes a compounded annual growth rate (CAGR) of 61 percent over the last four years (1999-2002). Panera Bread recorded approximately 1.25 billion in system-wide sales in 2003, which is particularly notable as its sales were just $114 million in 1998.

Consumer demand for bakery-cafe and quick-casual offerings created a $5.2 billion category in the restaurant industry. The revenue of Panera Bread for 2003 cited above (1.25 billion) now comprises more than 1/5 of the market share of the emerging fast-casual segment. The company achieved this feat by remaining debt-free and maintaining $39 million in cash.

In terms of stock performance Panera Bread investors enjoyed an average of 59.1 percent holding period return annually over the 1998-2002 period. This is considerably higher than the return of casual-dining (12.9 percent) and fast-food (5.8 percent) segments for the same period as reported by Madanoglu and Lee.

Risk-adjusted performance of the company for the 1998-2002 period, as measured by Sharpe Ratio, was 3.47, compared to 1.24 for casual-dining and 0.23 for fast-food segments. This implies that Panera Bread investors enjoyed a return per unit of risk three times higher than that of casual-dining and more than ten fold over fast-food restaurants.

**Planning requires scanning**

West and Olsen claimed that restaurant chains conducting regular environmental scanning perform better in comparison with restaurant firms that ignore environmental scanning or rarely conduct environmental scanning at all. The authors...
argued that establishing regular environmental systems is essential for restaurant operators in their effort to tackle external environmental changes and formulate long-term strategic planning.

Dorf contended that about three out of four restaurants were likely to stumble in their very first year of business operations due to the lack of environmental scanning and lack of strategic planning. Today, establishing and conducting a series of environmental scannings regularly has become more important than ever due to the rapid change in consumer preferences, fierce competition, and new technology development. One of the key factors that enabled Panera Bread to accomplish such a high growth was the company’s response to customers’ new needs by embracing necessary products and services to cater to their preferences based on the firm’s thorough environmental scanning. Figure 1 below presents the new consumer needs and the way Panera Bread develops and tailors its products and services strategically in accordance with these emerging environmental changes and market demand as follows:

Figure 1: Panera Bread’s innovative and competitive strategy

![Diagram showing Panera Bread's innovative and competitive strategy]

New Consumer Needs
- Growing Obesity Concern
- Social Connecting Place
- Convenience & Fast Service
- Preferences for Customized Food

Products & Service
- Fresh & Healthy Food
- Comfortable Cozy Places
- Self-Service
- Customized Sandwiches

Panera Bread
• Growing obesity concerns: According to Perlik, health is a key value driver when consumers choose a restaurant. This is confirmed by a study undertaken by the University of Colorado Health Sciences Center, which reports that approximately 31 percent of Americans (which corresponds to 59 million people) are considered obese, and 65 percent of Americans are overweight. Hellmich further makes a prediction that the rate of obesity will increase to 39 percent by 2008.

With the rapid increase of obesity in the U.S., associated health costs have soared. Obesity can increase heart disease, stroke, and high blood pressure. According to the America Obesity Association, health costs related to obesity reach about $100 billion. The association further points out that high consumption of fast food has played a significant role in the growing obesity rate in the U.S. Subsequently, consumers' desire for fresh and healthy food has increased.

For example, the U.S. organic food market has recorded 20 percent annual growth between 1997 and 2002 and is projected to continue to grow. In the view of Dimitric and Greene, the key drivers influencing the growth of organic food consumption include the desire for a healthier lifestyle, the awareness of environmental pollution, and consumers' preferences for quality food.

Panera Bread's variety of nutritious and healthy menu choices have a competitive edge over fast-food menu items in terms of freshness and nutrition. For example, a Veggi Garden sandwich of Panera Bread contains 570 calories, which is far less than that on menus of major fast-food restaurants. A Whopper contains 1,600 calories, while an average male needs only 2,200 calories daily. It simply means that a consumer will have already fulfilled more than two-thirds of his/her suggested daily calorie intake by consuming a Whopper.

Panera Bread's forward-looking initiative managed to detect the growing consumer desire for fresh and quality food ahead of time. The firm then offered a variety of fresh and healthy food choices such as fresh customized sandwiches and homemade soups which met consumers' growing healthy food needs.
- **Social gathering purpose:** Increasing numbers of consumers visit a restaurant for social gathering purposes in addition to their main purpose of dining-out. Starbucks has been able to attract a variety of customers ranging from mothers to businessmen by creating a coffee shop called “third place” where consumers can congregate for relaxation or a social or business meeting away from offices, school, and home.

Panera Bread followed suit by providing a cozy and comfortable atmosphere with leather sofa seating, fireplaces, and china dishes. These surroundings have attracted a number of consumers who can meet friends or relatives in addition to their dining purpose.

By providing comfortable settings, Panera Bread managed to create “chill out” business for consumers who come in between breakfast and lunch or lunch and dinner to eat pastry with coffee, or who come to the restaurant to meet friends. Approximately, 25 percent of the company’s revenue has been generated from this business. Furthermore, the appealing atmosphere of the restaurant helps the chain maximize the number of repeat customers.

- **Convenience:** Today consumers demand fast service so that they can cope more efficiently with busy work schedules and lifestyles. However, a large number of these consumers seem reluctant to visit traditional fast-food restaurants due to health and quality of food issues. Fast casual gained an edge in this aspect by offering quality fresh food. Panera Bread CEO Ron Shaich stated that more than 45 percent of consumers do not want fast food; nevertheless, consumers still prefer to utilize fast-service restaurants because of fast-paced lifestyles and hectic schedules.

According to Fieldhouse, fast-food restaurants have appealed to consumers due to the speedy service. On the other hand, Panera Bread has been able to take market share away from the fast-food segment by offering fast service to customers at the speed the fast-food restaurants provide along with a variety of fresh menus. Customers order and pick up their food at the counter, which maximizes operational efficiency by cutting labor costs. In addition, customers do not have to leave tips for servers.
• **Customized food**: Increasingly consumers prefer to eat customized food rather than standardized hamburgers, even though the price of customized sandwiches is considerably higher than that of mass-standardized hamburgers. However, the price difference does not seem to deter consumers. For example, Panera Bread offers 15 different sandwiches, served with 11 different types of the company's own bread. Customers have a wide variety of choices where they can select the ingredients and bread for their sandwiches. This enables the chain to accommodate more diversified customers who have different tastes and preferences.

The company's variety of customized sandwiches in conjunction with its tangy and fresh bread has played an important role in establishing its brand name and image as a fresh and healthy sandwich bakery/café, which differentiates itself from a restaurant chain that mainly sells fried and high-fat fast food.

**Core competencies remain**

Panera Bread continues to invest in a series of core competencies in order to sustain the company's competitive advantage and core products and services over competitors' service and products. Figure 2 shows the core competencies of the Panera bread:

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**Figure 1: Core competencies of Panera Bread**

- Excellent Training Program for Bakers
- Fresh Sourdough
- Focus on Customer Satisfaction
- Store Ambiance: Comfortable Seating, Niches
- Trademark of Panera Bread: Tangy & Fresh Bakery & Sandwiches
- Increasing repeat customers
- Good gathering to take care of relaxation

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As shown in Figure 2, the key core competency of the company is fresh, handcrafted bakery products. Unlike its competitors, the company does not use frozen dough in its bakery products. Currently, Panera Bread operates fresh dough production facilities across the country and delivers fresh sourdough daily to all its outlets with 79 leased trucks. Furthermore, the company places an emphasis on thorough and rigorous training of its bakers to assure the quality of all bakery products.

Training bakers is critical to maintain consistent quality of bakery bread since the chain bakes bread only in stone-deck ovens. For that reason, the chain requires all bakers to learn how to bake bread in these ovens. The company also requires all franchisees to attend a 10 week intensive training program and provides baker certification after the completion of the program. In addition, ongoing training is offered.

The combination of fresh sourdough and training of bakers makes up the core competencies which enabled the chain to establish its brand name as a bakery/cafe chain selling high-quality, fresh, tangy bread as well as sandwiches. The variety of fresh bakery products in the Panera Bread is well suited to consumers’ desires for fresh, high-quality food.

Another core competency that has contributed to the remarkable growth of Panera Bread is the company’s strategic focus on customer satisfaction rather than a dependence on marketing methods such as heavy advertising expenses and pricing strategies. For instance, Panera Bread ranks on top in the level of consumer commitment among restaurant chains. According to a research conducted by TNS Intersearch, a market-research firm, consumers’ brand commitment for Panera Bread is 12 percent, which far exceeds McDonald’s 6 percent and Burger King’s 4 percent.

The company’s high dedication to customer satisfaction through its products, services, and operational efficiency resulted in high brand loyalty even though the company spent only $842,170 for advertising in 2002. This figure is far lower when compared to the advertising expenses of fast-food giants McDonald’s ($593.9 million) and Burger King ($362.2 million).

This Panera Bread case demonstrates that relying heavily on marketing practices might be more effective in accomplishing a short-term financial goal. However, such marketing strategies do not seem to guarantee customer satisfaction and loyalty, which are crucial factors for a restaurant firm to accomplish its long-term success by recording a high return on investment.
CEO Ronald Shaich stated: "Consumers are smart. It's the experience and how they relate to it." Shaich believes that today’s consumers are not easily tempted by restaurant marketing techniques while making restaurant selections, rather, consumers tend to base their decisions on their food service experiences by evaluating food quality, restaurant atmosphere, and service.

**Plan builds on core**

This study displays how Panera Bread has developed the company’s strategic plan and built its core competencies to effectively capture changing consumer preferences and business environment by virtue of the company’s thorough environmental scanning. Researchers note that a restaurant firm’s long-term strategic vision includes elaborate strategic planning, systematic environmental scanning, development of core products, and allocation of resources accordingly. All these steps are essential to bolster the profits of a hypothetical restaurant firm and thus maximize its market value.

Today competitive restaurant environments and saturating domestic U.S. markets require restaurant operators to conduct competitive strategic planning to focus on core products, and to allocate resources effectively. Panera Bread is a prime example of how a restaurant firm establishes competitive strategies based on thorough environmental scanning and implements them efficiently. Many restaurant firms have been ignoring developing long-term strategic planning.

Dolf pointed out that a number of restaurants suffered from undercapitalization problems because restaurant operators did not establish competitive sustainable strategies and conduct strategic planning. Today’s fierce competition among fast-food restaurant operators unleashed a wave of price-cutting such as $1 hamburgers which eventually resulted in hurting the profit margin and brand value even though the series of discounts and promotions might help restaurant operators achieve short-term financial goals.

The study suggests that developing a competitive strategic plan and implementing it based on the company’s capability is a key factor for a restaurant firm to survive in the highly volatile and competitive restaurant industry. To no one’s surprise, to meet changing market and environment needs and consumers’ new preferences, restaurant operators have to switch from short-term profit orientation myopia into a long-term, future-oriented competitive strategic mindset in order to increase their firms’ value.
34 Brumback.
35 McPherson, Mitchell, and Mitten.
37 The Wall Street Journal
38 Smith.
39 Reitnager.
42 Ibid.
44 Leung (24 July 2003)
46 Dolf.

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Strategic approach to smoking bans: The case of the Delaware gaming industry

by John W. O'Neill and Qu Xiao

A study of Delaware's statewide smoking ban suggests that it may have had a significant negative economic impact on the state's gaming industry. However, such impact may vary in different segments of the hospitality industry, and therefore, must be examined strategically and on a case-by-case basis. The specific market environment, including both demand and competition of each state or each municipality, should be carefully analyzed by both governmental decision makers and by hospitality operators who influence these decision makers.

The potential threat of anti-smoking policies has been substantially noticed by the hospitality industry in recent years. As secondhand smoke is associated with an increased risk for lung cancer and coronary heart disease, in the United States, more and more states and local governments have introduced or are considering smoking bans in public places. While the health benefits of such regulations are apparent, a significant debate is whether they should be applied in the hospitality industry to the same extent as in other public places.

Some studies have focused on the impact of smoking bans on hotels, restaurants, and bars. Notably missing, however, is work aimed at other important sectors of the hospitality industry, such as the gaming industry. Further, most previous research in this area has failed to consider economic trends occurring in potentially competitive markets during the period when the subject market was analyzed. Moreover, most studies were funded by either anti-smoking advocacy groups or tobacco-related organizations, potentially biasing the researchers.

This article expands on previous research and attempts to overcome its limitations by considering the gaming industry in Delaware while simultaneously analyzing the gaming industry in West Virginia, a competitor of Delaware. Through comparing the casino revenues of Delaware and West Virginia before and after Delaware's statewide comprehensive smoking ban took effect in November 2002, the authors, who are not supported by
either smoking or anti-smoking advocacy groups, examine the effect of smoke-free regulations on the hospitality industry in general, and the gaming industry in particular. While the negative social and health effects of smoking revealed in previous research are well understood, this study focuses on economic data. Based on the findings, this article highlights the distinctions of casinos compared with other hospitality industry segments, and outlines strategic implications in two possible future scenarios in which the gaming industry could minimize the potentially negative economic effects of smoking bans.

**Smoking bans have mixed effects**

As of July 2004, there were 312 jurisdictions in the United States that had "100 percent" smoke-free provisions in effect. More than half of these regulations exclude restaurants or bars, and most exclude casinos (if applicable). Among the 50 states, Delaware, Connecticut, Maine, Massachusetts, California, and New York have statewide anti-smoking policies in both restaurants and bars, while Florida, Idaho, and Utah only prohibit smoking in restaurants.

Restaurants and bars are the most widely studied sectors within the hospitality industry with regard to the economic effects of smoking bans, and the results of the studies have been mixed. It is noticeable that many studies sponsored by health and anti-tobacco organizations revealed no negative financial impact from such regulations, while many other studies, which were supported by the tobacco industry, claim significant adverse economic effects. Despite the different perspectives of researchers, in general, a majority of the studies have shown that smoking bans have had no significant adverse impact on sales or employment in restaurants and bars.

Although a large body of the previous research has focused on restaurants and bars, fewer studies have been dedicated to the gaming industry. Part of the reason could be that fewer states and local governments mandate anti-smoking policies in casinos. In the trade press, it has been reported that casino revenues have declined in virtually every jurisdiction mandating smoke-free regulations.

In the state of Victoria in Australia, a partial smoking ban, which only regulates smoking in the areas around gaming machines and gaming tables but not in the bars, was introduced in September 2002, and resulted in total revenue declining by 8.9 percent in a 10-month period thereafter. Whereas a 6 percent annual growth rate was forecasted by the industry before the Victoria smoking ban, it is now projected that it will take the industry...
seven years to recover to 2002 revenue levels. Due to a complete smoking ban anticipated to be introduced in Victoria in 2006, gaming expenditures in Australia are forecasted to experience their first ever decline of 3.2 percent in 2007.

In New Zealand, where anti-smoking policies have a December 2004 scheduled nationwide introduction, the net effect on total gaming expenditures is officially expected to be even more dramatic.

**Ban affects gaming**

In the United States, there are three states that allow and regulate video lottery at racetracks: Delaware, West Virginia, and Rhode Island. In 1994, the Delaware legislature passed House Bill 628, the Horse Racing Preservation Act. The bill legalized "video lottery operations" at the three Delaware locations where thoroughbred or harness horse racing was held in 1993: Delaware Park, Dover Downs, and Harrington Raceway.

During each year from 1993 through 2002, gaming revenue grew in Delaware. The Delaware gaming market was regarded as relatively efficient in terms of revenue productivity. In 2002, the revenue per slot machine per day in Delaware was $290, ranking fourth among 20 major American slot machine gaming markets. Such relative profitability suggested room for potential expansion as recently as 2002.

By December 2002, there were 5,430 slot machines in the three racetrack casinos, which contributed more than $200 million annually to the state, making up approximately 8 percent of the state budget. Depending on which of the three facilities is being analyzed, between 65 and 84 percent of gamblers come from out of state. Pennsylvania, Maryland, and New Jersey are the top three feeder markets for the three casinos, and Washington, D.C., and Virginia are significant feeder markets, as well.

On November 27, 2002, the "Delaware Clean Indoor Air Act," a comprehensive smoking ban, went into effect. This smoking ban outlawed any smoking in all indoor public places, including restaurants, bars, and casinos, and was admired as the strictest and most wide-ranging anti-smoking policy in the country. However, the smoking ban has resulted in Delaware experiencing the nation's largest loss in casino revenues. Delaware's gaming revenues have continuously declined every month since December 2002, resulting in an annual 10.6 percent negative growth rate in 2003, after increasing during every year before the ban. Even Governor Ruth Ann Minner acknowledged that the state budget would experience a potential...
loss of as much as $57 million annually at the time she signed the regulation in May 2002. In addition to the decline in direct gaming revenue, Delaware could have indirect losses in other related businesses, such as tourism, as well.

**West Virginia benefits**

In the state of West Virginia, four race tracks, Mountaineer Park, Charles Town Races, Wheeling Downs, and Tri-State Racetrack and Gaming Center, were authorized to operate video lottery machines in 1994. Five years later, West Virginia passed a bill, referred to as the "Limited Video Lottery Act," allowing for a maximum of 9,000 slot machines in bars and restaurants serving alcohol, and a maximum of five slot machines per establishment. Despite steadily growing revenues and contributions to the state's tourism, education, and senior citizen programs, West Virginia's slot machines have had a much lower level of profitability than Delaware's. At the end of 2002, there were 9,754 slot machines in the four race tracks and 5,329 slot machines in 1,600 bars and restaurants. The revenue per slot machine per day in West Virginia was $182, ranking 11th among 20 similar markets, and more than a third of 9,000 allowable limited video lottery licenses remained unclaimed. Ohio, Virginia, Pennsylvania, and Kentucky are major out-of-state feeder markets, and Maryland and Washington, D.C., generate demand, as well.

As one of the competitors of Delaware's gaming industry, West Virginia's gaming revenue has seen a double-digit growth rate since Delaware's smoking ban went into effect. Video lottery revenue was reported up 32.6% percent in the fiscal year ending June 2003 and 23.2% percent in the fiscal year ending June 2004. Since March 2003, the West Virginia Lottery Commission has approved 1,000 and 500 additional slot machines at Charles Town Races and Mountaineer Park, respectively. Although many factors could contribute to such a dramatic growth, this study concludes that this growth was partially attributable to the loss of smoking gamblers in Delaware, where the gaming industry experienced declines during the same period.

Regardless, two significant limitations were identified in the existing literature on the effect of smoking bans on the gaming industry. First, most of the literature was published in gaming-oriented trade magazines, such as Global Gaming Business, and these studies may be biased. Second, the lack of rigorous research-design, systematic data analysis, and peer-review process further weakens the persuasiveness of previous articles. This study seeks to
provide insights into the “smoking ban on revenue” dilemma based on systematic procedure and robust statistical analysis.

**Time series approach used**

This study is designed to explore the economic effects of the smoking ban on Delaware’s gaming industry, while comparatively examining the gaming industry in West Virginia, where no such ban was in effect. The casino revenue data were obtained from the Delaware State Lottery and West Virginia Lottery. Due to the fact that the smoking ban in Delaware has been in effect for fewer than two years, to take into account the yearly cyclicality of the gaming industry, the data were collected to include both states’ casino revenues 12 months before and 12 months after the smoking ban became effective. Since the original data consist of uneven periods (some periods had four weeks’ revenue and some had five weeks’ revenue), they were adjusted to be comparable. By multiplying the revenue numbers of all five-week periods by 80% percent, the estimated four-week revenue of each period was obtained.

Although the time series approach is mostly used for forecasting, it is also commonly applied for explanation purposes. In particular, while the authors acknowledge that the sample consisting of only 24 monthly revenue figures is normally considered to be relatively small, a time series approach is statistically sound for this study because the data (monthly casino revenues) were collected repeatedly over time in both states and show clear cyclical patterns throughout the year. Consequently, to reveal the changes of both states’ casino revenues after the Delaware smoking ban became effective, a time series autoregressive model is fitted with computer-based SAS software for each state. In each model, casino revenue is the response variable. The explanatory variable is the presence or absence of the smoking ban, which is a “dummy” variable, coded as 0 for the absence of the Delaware smoking ban and as 1 for the presence of the ban.

It is noticeable that the number of slot machines increased in both states during the study period. Delaware had gradually added a total of 247 terminals in the two years, while there was only one considerable change in West Virginia as the Charles Town Races added 746 slot machines on July 1, 2003. To examine the potential effect of the increased number of slot machines on the revenues, the number of each state’s slot machines was originally included in the time series autoregressive model as a second explanatory variable. However, the statistics reveal that the number of slot machines is not a significant factor in explaining the
Changes are significant

The results of the analyses of both states indicate that, after Delaware's smoking ban took effect, the revenue changes (decrease or increase) in both states were significant (p < 0.001). In the analysis of Delaware, the autoregressive model shows that the presence/absence of the smoking ban is effective at predicting casino revenues (R2 = 72.2% percent, p < 0.001). The model concludes there was a significant decrease in Delaware's casino revenue since November 2002. This trend is clearly shown in Exhibit 1.

Similarly, the autoregressive model fitted for West Virginia reveals that there is a significant increase in its casino revenues since November 2002, explains the correlation between Delaware's smoking ban and West Virginia's casino revenues (as well as Delaware's) based on the statistics presented. Exhibit 2 shows the significant improvement trend of casino revenue in West Virginia during the study period.

Results reveal impact

Smoking bans are currently viewed as one of the single greatest threats to consumer expenditures and long-term
strategies in the hospitality industry of many markets around the world. As statewide smoking bans have not yet been commonly instituted in most states where gaming is a major industry, Delaware is to date the most significant case regarding the effects of smoke-free regulations. The findings of this study indicate that, at least in the short term, Delaware's smoking ban indeed has had a negative effect on the revenue of Delaware's gaming industry. Simultaneous to this downward trend, West Virginia's gaming industry (one of Delaware's competitors), where there was no smoking ban, registered significant revenue improvement. However, this study may not have yielded a final conclusion that could be generalized worldwide.

While gaming revenues of the two states were presented comparatively, the results of the data analysis should be treated cautiously. On the one hand, it may be argued that some gaming patrons who are smokers and reside in neighboring no-casino states (Pennsylvania, Maryland, Virginia, and Washington, D.C.) could easily travel to gaming venues in either Delaware or West Virginia, and might have elected to more frequently patronize West Virginia establishments over those in Delaware after the smoking ban went into effect.

On the other hand, alternative explanations could exist. This study takes a few possible alternatives into consideration. In addition to the previously mentioned test of scrutinizing the potential impact of the increased number of slot machines on the revenues during the study period (which was found to be an insignificant predictor), the authors examined the marketing efforts of both states as well, and found that there was a bigger drop in marketing expense in West Virginia (-6.2%...
percent) than in Delaware (-3.7% percent) during 2003. Therefore, the increase in West Virginia's gaming revenue could not be attributed to the change of the state's marketing expense. Indeed, such data appear to confirm support that the Delaware smoking ban was a significant factor in the subsequent revenue trends in both Delaware and West Virginia.

However, the authors acknowledge that wide-scale consumer research would be required to most comfortably draw a concrete conclusion of causality from the smoking ban to its effects on the gaming industry. Instead, by revealing the opposite revenue trends in Delaware and West Virginia, this study aims to expose the distinctions of casinos compared with previously studied hospitality segments, to indicate two possible future scenarios in which smoking bans may have effects on the gaming industry, and to delineate strategies for industry practitioners in their efforts to minimize the potential negative effects of smoking bans.

**Findings provide contrast**

The findings of this study are not consistent with the results of most previous research on the effects of smoking bans on restaurants and bars. The authors propose that this contrast reflects a fundamental difference between casinos and restaurants/bars. While restaurants and bars primarily compete at a local level, studies reveal that in many states casino revenues are primarily generated through out-of-state patronage.

It is interesting to note that Delaware's earlier proposed anti-smoking bill, which included a provision allowing smoking in casinos, was not approved in 2001. One of the important reasons was that restaurants, led by the Delaware Restaurant Association, had strongly opposed that bill because it would put the traditional restaurants at a severe disadvantage in their competition with restaurants and bars in casinos. After the anti-smoking bill was revised to include casinos, the Delaware Restaurant Association withdrew its opposition. While Delaware's restaurants have avoided the smoke-free disadvantage because their business is mostly local, unfortunately, its casinos have been put in an underprivileged position of competing with gaming establishments in nearby states where smoking is allowed.

A classic case is Philadelphia, the nation's fifth largest gaming feeder market, which generates over 13 million casino trips annually. Philadelphia is about a 50-minute drive from Atlantic City and a 25-minute drive from Wilmington, Delaware, where the largest Delaware gaming venue is located. It may be assumed that smokers would probably drive a few extra minutes to a casino where they can smoke when playing...
slots. In fact, after the Delaware smoking ban went into effect, slot machine revenues increased over 2 percent in Atlantic City (in 2003).

Another more recent example corroborating this trend occurred in Pierce County in the state of Washington, where a smoking ban went into effect in January 2004. Those smoke-free casinos experienced an immediate negative impact, reporting a 25 percent decline in food revenues, a 42 percent decline in liquor revenues, a 35 percent decline in gaming revenues, and began significant layoffs during the first quarter of 2004. Yet, the tribal gaming houses, which are exempt from the county smoking ban, and the casinos in neighboring counties allowing smoking, have reported increased revenues since the smoking ban went into effect.22

**Strategies minimize impact**

The complicated competition mix of casinos, which are often regulated by different legislations, cautions that the effects of smoke-free regulations on the gaming industry must be examined strategically and on a case-by-case basis. The specific market environment, including both demand and competition of each state or each municipality, should be carefully analyzed by both governmental decision makers and by hospitality operators who influence these decision makers.

It is undeniable that mandating a comprehensive smoke-free regulation may be beneficial for public health. However, in states and municipalities where casinos would be most seriously affected by smoking bans due to regional competition, reasonable strategic compromises could minimize such negative effects while still achieving the primary goal of creating healthier environments.

It is to be expected that smoking bans will be introduced into more states and municipalities in the future, primarily in the United States initially, and, eventually, throughout the world. Two likely scenarios could be proposed: first, a few more states may join Delaware in introducing similar comprehensive smoke-free regulations that would outlaw smoking in casinos, and, second, some states will establish smoking bans that exclude gaming establishments. In either scenario, given the potentially significant negative economic impact smoking bans can have on the gaming industry, careful strategic considerations should be evaluated by both legislators and industry practitioners.

From the legislators’ perspective, the challenge lies in how to qualify and quantify the economic impact of smoking bans on the gaming industry and then to balance such impact with other economic and
social impacts and benefits. To the gaming industry, although the second scenario is less challengeable and more preferable, in fact both scenarios require significant monetary and non-monetary input. The following section provides detailed strategic suggestions to industry practitioners regarding these two scenarios.

**Other states differ**

In states and municipalities that do not rely heavily on smoking gamblers and where out-of-state competition is not fierce, it will not be highly detrimental to have universal smoking bans implemented. Due to the smoking bans not generating significant competitive disadvantages for the casinos in those states and areas, the effects will not be as significant as the economic losses experienced in Delaware. In such states, one of the primary strategies for casino operators to pursue may be persuading the policy makers to provide casinos some reasonable compensation to offset possible revenue losses.

For example, allowing casinos to have more slot machines, to extend their operating hours, and to expand slot machine selections to target new customers could be at least partially beneficial to casinos and to state revenue. Moreover, another approach could be promoting the state’s or a particular casino’s smoke-free environment. Depending on the demographics of customers, smoke-free regulations could even enable casinos to gain competitive advantages. A few casinos that voluntarily became smoke-free have had some success in this regard.23

Among the states that have slot machine operations, the authors believe that most of them should and will exclude casinos from their smoke-free regulations. As discussed previously, in the states where the gaming industry is a major employer, the potential negative economic impact of a smoking ban could go beyond the casino revenue losses to include a decline in tourism in general, and lost jobs as a result of that. To avoid such a serious loss, it is strategically crucial for the gaming industry to make all possible efforts to assess the economic effect of smoking bans and to assist policy makers in understanding the significance of such impact.

Equally important, industry leaders should suggest reasonable alternative regulations that could protect both non-smokers and casinos. Instead of adopting a comprehensive smoking ban, casinos may be required to comply with other specific regulations such as separating smoking and non-smoking areas with physical walls, and meeting high air quality equipment and measurement...
standards. Fortunately, sophisticated air replacement and filtration systems have become available to greatly improve the air quality even in smoking areas and to isolate non-smoking employees from smoking customers. In the casino industry, the availability and use of such advanced technology plays a critical role in minimizing the negative economic impact of smoking bans.

Options are offered

The authors hope the results of this study will provide both policy makers and industry practitioners with valuable insight into the strategic threats, opportunities, and possible options related to implementing smoke-free regulations. However, the findings of this study should not be interpreted to indicate that smoking bans permanently hurt all casinos equally worldwide. More research is needed to fully assess the impact of smoking bans on the gaming industry.

Although the situation of Delaware is the only case with available revenue data to date, it is reasonable to expect that various markets may respond differently in the future. When more jurisdictions mandate smoking bans, like Pierce County in the state of Washington did in 2004, more data will become available, and, consequently, future studies incorporating more smoking-ban-affected gaming markets would be informative. Furthermore, it is possible that many casinos will benefit from smoking bans in the long run because as people adjust to the change over time, more and more non-smoking gamblers may prefer to stay and play longer in a smoke-free environment.

The available data prevented this study from examining any long-term effects because the Delaware smoking ban, the earliest such regulation, was in effect fewer than two years at the time of this study. Future research might focus primarily on comparing the short-term and long-term effects of smoking bans when such data become available, and thus would reveal a more complete picture.

References:

3 Hyland, et al.
7 Bear Stearns, "Gaming" (December 2003):


12 Bear Stearns.


17 Monaghyan.


19 Bear Stearns.


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Visitor at-destination search
for travel-related services

by Robin DiPietro, Denver Severt, Paul Rompf, and Peter Ricci

The phenomenon of at-destination search activity and decision processes utilized by visitors to a location is predominantly an academic unknown. As destinations and organizations increasingly compete for their share of the travel dollar, it is evident that more research needs to be done regarding how consumers obtain information once they arrive at a destination. This study examined visitor referral recommendations provided by hotel and non-hotel "locals" in a moderately-sized community for lodging, food service, and recreational and entertainment venues.

Recommendations from the local populace play an important role in the search for venues required of the vacationing public. Such recommendations include lodging facilities, nightlife and entertainment activities, dining and food service establishments, recreation, shopping, or special events. The individuals who make such recommendations are as diverse as the population of the host community within which they make their residence.

Prior to arrival or in route to a destination, vacationers are often likely to interact with hospitality industry employees who assist them (i.e., travel agents, flight attendants, cab drivers, etc.). As employees of the hospitality industry, these individuals may be perceived as "selling" or "advertising" and not giving a truly personal recommendation when called upon for traveler or visitor information. In contrast, a local townsperson may be perceived as unbiased and more likely to provide a sincere recommendation since he or she is not compensated by a hospitality industry employer.

This enhanced credibility of a local reference is at the heart and soul of the trustworthiness expected of a vacationer who wants to experience the local area sites and vistas. An element of this type of recommendation from a local is its sincerity and its personal nature. Vacationing individuals are less likely to respond optimistically if they feel that such locally-provided advice is unnatural, financially-driven (such as by a compensated employee), or not seen as candid and trustworthy.
Many sources available

Some consumers find the vacation destination information search interesting and worthwhile, while others may find it time-consuming and stressful. Consumers can often rely upon a multitude of sources for this information search. In today's high-tech world, consumers who request vacation information for a destination are often apt to utilize brochures, internet websites, destination marketing organizations (DMOs) such as local chambers of commerce or convention and visitors bureaus, or travel agents. The employees of such organizations may provide accurate information to vacationers or they may simply promote their members or other paid advertisers. The perception is that they are not as likely to offer a gratuitous referral as suggested by Rompf. As defined by Rompf, instances where an individual provides information to a traveler and the individual providing such referral is not perceived to be compensated in any form by the suggested establishment are defined as "gratuitous referrals."

Research on information search sources and decision strategies prior to departure or en route to a destination all exist in the literature. Research published on specific vacation at-destination search activity is limited. The authors extend this narrow selection of published material on at-destination research via discussion of a cross-section of "locals" and their specific recommendations for venues to the vacationing public once at their intended final destination. These recommendations include venues such as accommodations, food service, and entertainment.

NRA commissions study

In the late 1980s the National Restaurant Association commissioned a study by Gallup in order to investigate visitor information sources when away from home or on vacation. Various advertising media such as the local newspaper, radio, television stations, and billboards were examined as central sources of influential information for visitors. The study also assessed the role of hotel personnel and local townspeople as informational sources. Billboard ads and signs were found to exert the most influence of the advertising media, with 44 percent of respondents reporting being "very influenced" (7 percent) or "somewhat influenced" (37 percent). In contrast, almost two-thirds of respondents reported being "very influenced" (23 percent) and "somewhat influenced" (37 percent) by hotel personnel. A further, somewhat startling finding was that almost 80 percent of those same respondents indicated they were "very influenced" (45 percent) or "somewhat influenced" (34 percent) by the local townspeople.

Investigations of pre-trip and in-transit informational sources used by
travelers (e.g., travel agents, guide books, highway welcome centers) are readily evident in the literature, primarily for the purpose of traveler segmentation analysis to be utilized for information delivery strategies. Cross-cultural differences in search behavior have also been investigated. The cross-cultural studies, as with previous research, predominantly relate to pre-trip decision activity and traveler segmentation. Increasing use of the internet, not only as an informational source but also as a pre-trip booking agent, is also manifest.

None of the above precludes a traveler's further necessity for making travel-related decisions at the destination itself. The American Hotel and Lodging Association (AH&LA), the nation's largest trade group for the hotel industry, reported that more than 80 percent of travelers (business traveler, 91 percent; leisure traveler, 83 percent) have advance reservations when checking into public lodging facilities. To meet the significant demands for various information, local visitor centers purposely provide travelers with destination-specific dining and entertainment/recreational information along with lodging information.

**Decisions from model**

Whether making a pre-trip or in-transit purchase decision on travel services to be provided at a destination or making the decision at the destination itself, general models of consumer's decision processes portray a rational, multi-attribute processing that entails an extended version of Fishbein and Ajzen's model of consumer decision making, that is, a systematic informational search to obtain and weigh attributes that, in turn, translate into beliefs and further form a behavioral intention prior to an actual purchase. Mediating effects of the consumer's involvement level, peer and informational social influences, and situational factors have been shown to influence the sources utilized by consumers and the types of attributes processed in making the decision. Rosen and Olsavsky further proposed that, under some circumstances, the consumer may subcontract (transfer) the decision to a third party who they believe has the appropriate expertise and is trustworthy (e.g., purchasing a travel package through a travel agent may be considered one form of a subcontracted decision). The circumstances typically associated with subcontracting the decision are time constraints, limited expertise on the part of the consumer, a perceived high risk associated with the decision, and a lack of interest in making the decision.

Recent exploratory research investigated and reported upon a subset of visitor at-destination informational search activity for travel services. A southern U.S. rural community (Statesboro, Georgia) and the national...
capital of a foreign state (Canberra, Australia) focused upon two distinctively different destinations. The target populations of the studies were people from the local community, but solely concentrated on hotel front office personnel responding to visitor requests for referrals to food service venues. The current study replicated and extended the population of interest to include a broader cross-section of people from the community—police officers, service station attendants, retail clerks and mall service desk personnel, hospital information desk attendants, food service/restaurant personnel, taxi drivers, recreation and entertainment staff, and car rental clerks.

**Gratuitous referrals cited**

Rompf\(^1\) drew a critical distinction between at-destination referral activities in general and those he deemed to be genuinely gratuitous and personal in nature, "a gratuitous referral." He posited that a traveler typically seeks and obtains (hopefully) a personal recommendation (expertise) that, by appearance and/or in practice, is unaffected by monetary or other remuneration (trust) provided by a venue being recommended. As a result, he excluded personnel at destination marketing organizations (DMOs) such as highway welcome centers and visitors' bureaus that, by their nature, did not meet his definition because of general restrictions as to the level of information they may provide. That is, internally there is a requirement to be balanced in providing referrals to a full list of venues, not advantaging or disadvantaging any specific venue. In addition, there may be a requirement for a venue to be a member of the DMO to be referred.

The general public is probably unaware of the extensive gifts and other forms of remuneration (including cash) a hotel concierge may typically receive from venues to which he/she refers visitors. However, using the criteria of expertise and trust, recommendations provided by a hotel concierge will probably fail the gratuitous referral test and were therefore excluded by Rompf\(^1\) from the local population being investigated.

In highlighting the significance of local referral activity, Rompf\(^7\) further posited that there is a high probably of a gratuitously-referred venue recommendation being acted upon by the traveler because of the following:

- The traveler initiated the request
- The decision timeline is relatively immediate
- The perceived "local expert" was pre-selected by the traveler\(^8\)

This definition is also consistent with the word-of-mouth literature because the person conveying word-of-mouth information does not profit in a monetary or similar way when the person receiving the word-of-mouth...
information decides to patronize the business. Even within the marketing word-of-mouth literature, few studies have examined what happens after the word-of-mouth communication occurs. While for many years, business analysts have purported a positive relationship between word-of-mouth and business performance, the actual financial value of the word-of-mouth information has not been tabulated.

Further research on this topic could be very important to business owners and to marketing researchers. The current gratuitous referrals research is also the first to consider the positive word-of-mouth communication solicited by a traveler during the travel experience. Most research has focused on positive word-of-mouth communication after the experience is finished or after the service encounter is complete, rather than at the destination and situational.

**Local residents selected**

Local residents of the destination community, Gainesville, Florida, comprised the population of interest. Following reported protocol used in published gratuitous referral studies, an interviewer verbally requested unaided responses to preset questions and recorded respondents' answers on a standardized questionnaire administered in the field. Repeat visits to venues were undertaken to capture referral activity across all of the various shift periods in a day as well as the weekday versus weekend shifts.

Reported venue referrals by respondents, either with specific venues named or geographic in nature for dining, lodging, and recreation/entertainment were captured. Also recorded was information on the respondents' location, establishment name, day in the week and time of day, and occupation or job title of the respondent. General notes and comments regarding the respondent or location were further recorded for all respondents. Finally, if a lodging facility was the interview venue, also captured was information on the existence of and types of on-site food service facilities, as well as the availability of such facilities being visibly offered nearby.

A total of 137 participants cutting across a broad section of occupational groups within the community provided useable data for the study. A full census of lodging properties was undertaken and, therefore, the majority of respondents (82) were from the lodging sector. Thirty-nine lodging properties (excluding bed & breakfast inns) comprised the local lodging census; 18 were located along an interstate highway corridor, and the remaining were within/around a university or along an old north-south route running through the city. Personnel from 35 properties participated in the study.

Both representative and convenience
sampling of non-lodging venues/occupations was utilized. Where the respondent was from a vastly larger population (e.g., food service venues, shopping venues, police, recreation venue), the data is indicative and not representative of the population. Of the non-lodging respondents, 10 were from food and beverage facilities across the city, ranging from Starbucks and McDonald's to TGI Friday's. Seven were located at museums, historic sites, recreational areas, and shopping venues. Another 23 were at service station locations along the interstate and within the city. Finally, seven airport and city-based car rental agents, four cab drivers in airport queues, a state highway patrolman, and three hospital visitor information staff rounded out the non-lodging respondents.

Nearly 100 percent of hotel front office personnel (none being a concierge) from this and previously cited studies reported "frequently receiving" dining referral requests, and approximately 80 percent of them (n = 82) in the Gainesville study reported the same for recreation and entertainment requests. In contrast, 66 percent and 58 percent, respectively, of the non-hotel sample reported "frequently receiving" dining and recreation and entertainment referral requests. On the issue of lodging referrals, the non-hotel sample was split down the middle (51 percent) on receiving lodging requests.

The average number of referral requests per person (not property) per week in the study should also garner attention, especially if you are the proprietor of a venue for potential referral. The weekly number of food service venue referrals varied within and between the study's respondents. Respectively, the rural community respondents reported an average of 7.5 (range 2-37) food service referrals per week, while the foreign capital respondents reported approximately 10 (range 0 - 20) per week. However, the current study respondents reported approximately 22 (range 0 - 200) referral requests per week. Respondents in the Gainesville study further reported an average of 6.9 (range 0 - 60) recreation and entertainment referrals and 3.6 (range 0 - 35) lodging referrals; the latter did not include lodging personnel.

**Lodging referrals popular**

Multiple venue naming being permitted, summing across all respondents (n = 79) who reported "frequent requests for lodging referrals" generated a total of 170 named lodging venues, with expected venue duplication by respondents. The top 10 (out of 39 possible lodging properties) collectively captured 118 (69 percent) votes, while another 18 hotels received 52 votes. Differences in respondent preferences based on hotel versus non-hotel designation are evident in the data. (See Table 1).
The top four lodging properties in order of frequency among respondents making referrals were Cabot Lodge, Courtyard by Marriott, Hampton Inn, and Motel 6. Cabot Lodge, favored by 24 respondents, far exceeded the competition and was the lead referral property for both hotel (31 percent) and non-hotel respondents (30 percent). No clear second most referred hotel existed, with Courtyard by Marriott (14), Hampton Inn (13), and Motel 6 (13) all in a very close second grouping. Two full-service properties, Doubletree Hotel and Sheraton Hotel, did not make the top 10 list among all respondents. However, the Doubletree (2) tied for tenth, along with Ramada Limited, Red Roof Inn, and the University Centre Hotel among non-hotel respondents; the Sheraton (5) tied for tenth along with Fairfield Inn and Holiday Inn University among hotel respondents.

One car rental agent at the airport referred travelers to a brochure rack; otherwise, all respondents had specific lodging properties they favored and to which they referred visitors. This was in contrast to some of these same respondents who provided “geographic referrals” (e.g., Archer Road; downtown clubs) for restaurants and recreation and entertainment venue requests.

### Table 1: Top 10 recommendations for lodging

<table>
<thead>
<tr>
<th>Total venues recommended = 28</th>
<th>Full sample</th>
<th>Hotel sample</th>
<th>Non-hotel sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple recommendations per respondent permitted</td>
<td>79 respondents</td>
<td>52 respondents</td>
<td>27 respondents</td>
</tr>
<tr>
<td>Baymont Inn</td>
<td>10 (12.7%)</td>
<td>3 (3.8%)</td>
<td>7 (25.9%)</td>
</tr>
<tr>
<td>Best Western</td>
<td>9 (11.4%)</td>
<td>6 (10.1%)</td>
<td></td>
</tr>
<tr>
<td>Cabot Lodge</td>
<td>24 (30.4%)</td>
<td>16 (30.8%)</td>
<td>8 (29.6%)</td>
</tr>
<tr>
<td>Comfort Inn</td>
<td>9 (11.4%)</td>
<td>9 (17.3%)</td>
<td></td>
</tr>
<tr>
<td>Courtyard/Marriott</td>
<td>14 (17.7%)</td>
<td>10 (19.2%)</td>
<td>4 (14.8%)</td>
</tr>
<tr>
<td>Doubletree</td>
<td></td>
<td>2 (7.4%)</td>
<td></td>
</tr>
<tr>
<td>Hampton Inn</td>
<td>13 (16.5%)</td>
<td>12 (23.1%)</td>
<td></td>
</tr>
<tr>
<td>Holiday Inn Univ.</td>
<td>9 (11.4%)</td>
<td>5 (9.6%)</td>
<td>4 (14.8%)</td>
</tr>
<tr>
<td>Motel 6</td>
<td>13 (16.5%)</td>
<td>8 (15.4%)</td>
<td>5 (18.5%)</td>
</tr>
<tr>
<td>Quality Inn</td>
<td></td>
<td>4 (14.8%)</td>
<td></td>
</tr>
<tr>
<td>Ramada Limited</td>
<td></td>
<td>2 (7.4%)</td>
<td></td>
</tr>
<tr>
<td>Red Roof Inn</td>
<td>9 (11.4%)</td>
<td>7 (13.5%)</td>
<td>2 (7.4%)</td>
</tr>
<tr>
<td>Rush Lake Motel</td>
<td></td>
<td>3 (11.1%)</td>
<td></td>
</tr>
<tr>
<td>Super 8</td>
<td>8 (10.1%)</td>
<td>7 (13.5%)</td>
<td></td>
</tr>
<tr>
<td>Travelodge</td>
<td></td>
<td>3 (11.1%)</td>
<td></td>
</tr>
<tr>
<td>Univ. Centre Hotel</td>
<td></td>
<td>2 (7.4%)</td>
<td></td>
</tr>
</tbody>
</table>

*Totals more than 100 percent due to multiple responses.
F & B referrals frequent

Consistent with the reported Gallup\textsuperscript{23} data, at-destination visitors appear to readily ask locals for recommendations on dining venues for breakfast, lunch, and dinner. In this Gainesville study, 84 percent of all respondents reported being frequently asked for a recommendation for either lunch, dinner, or both (actually breakfast as well, but the questionnaire was not designed to capture it separately and it was combined with luncheon referrals). Of the 137 total respondents, 115 reported frequent requests, with 79 and 36, respectively, being from the lodging and non-lodging segments. As with lodging referrals, respondents were permitted to name more than one restaurant venue, and there appears to be differences between lodging and non-lodging respondent recommendations.

In analyzing the specific venue recommendations, 6 percent of cumulatively “named” dinner venues (14 out of 238; $n = 115$) across respondents, along with 3 percent of luncheon venues (4 out of 159), were to a designated area of town, Archer Road, instead of to a specific restaurant. A section of Archer Road contains a broad assortment of national and regional chain restaurants (e.g., Bennigan’s, Olive Garden, McDonald’s, and Outback Steakhouse), as well as a few independent restaurants. To provide further context, Archer Road tied for tenth place, with the Waffle House for lunch, and was fourth for dinner (Table 2), being mentioned by 14 respondents and ranking behind Outback (29), Carrabbas (21), and Ale House (19).

With an almost 2:1 representation in the sample, lodging personnel highly influence the list of reported venues. Separating into lodging and non-lodging respondents’ top 10 list of restaurant referrals, there is both commonality and variation among respondents. In particular, almost twice as many non-lodging (compared to lodging) respondents referred dinner patrons to Archer Road and all of the Archer Road luncheon referrals were from non-lodging respondents. (See Table 2).

When investigating all venue recommendations for lunch, only five of the top 17 recommended by lodging personnel were also given by non-lodging respondents. Similar patterns appear for dinner. In particular, non-lodging respondents exclusively include the Steak & Shake, Shoney’s, Fazolli’s, and Conestoga Steak on their list of where to dine for dinner and are split, with one lodging property in recommending McDonald’s for dinner.
Table 2: Top 10 recommendations for dinner

<table>
<thead>
<tr>
<th>Total venues recommended = 58</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple recommendations per respondent permitted</td>
</tr>
<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td>Outback</td>
</tr>
<tr>
<td>Carrabbas</td>
</tr>
<tr>
<td>Ale House</td>
</tr>
<tr>
<td>Archer Road</td>
</tr>
<tr>
<td>Texas Roadhouse</td>
</tr>
<tr>
<td>BallyHoo</td>
</tr>
<tr>
<td>Rafferty’s</td>
</tr>
<tr>
<td>Friday’s</td>
</tr>
<tr>
<td>Cedar River</td>
</tr>
<tr>
<td>Denny’s</td>
</tr>
<tr>
<td>Jade Gardens</td>
</tr>
<tr>
<td>Sawamura</td>
</tr>
<tr>
<td>Olive Garden</td>
</tr>
<tr>
<td>Bennigans</td>
</tr>
<tr>
<td>Chili’s</td>
</tr>
<tr>
<td>Sonny’s</td>
</tr>
</tbody>
</table>

*Totals more than 100 percent due to multiple responses

The top recommendations for lunch by lodging personnel were Outback (21 percent) and Chili’s (16 percent). For the non-lodging segment, the top recommendations were Jade Gardens (15 percent) and Archer Road, Chuck Wagon, and Sonny’s (12 percent each).

The top recommendations for dinner by lodging personnel were Outback (19 percent), Carrabba’s (16 percent), and Ale House (14 percent). The top recommendations for the non-lodging segment were Archer Road and Outback (23 percent).

Overall, national chain brands greatly surpassed independents in recommendations. This is in contrast to an earlier study in a small rural community and in which independent restaurants predominated.

**Clubs rank at top**

Again with multiple recommendations per respondent permitted, combined recreation and entertainment venue referrals numbered 215 in total when summed across all respondents. These predominantly represented nightclubbing (32 percent);
historical, natural, and cultural tours (28 percent); cinema viewing (10 percent); and shopping (8 percent) as major categories of activities associated with the venues. This entire section had the greatest consistency when comparing referrals by hotel and non-hotel respondents (Table 3).

The number one choice for recreation and entertainment among hotel and non-hotel respondents was “downtown clubs” (30 percent of the hotel employees and 31 percent of the full sample), possibly reflecting a large concentration of nightclubs in a four-block downtown area. Rarely was a specific club mentioned by name except in the case of the Swamp Bar & Restaurant. This centrally located venue received light recommendations from hotel employees and four from non-hotel employees, for a combined total of 6 percent of all recommendations for recreation and entertainment.

For more culturally-oriented experiences, several local museums made the Top 10 list of venues recommended in recreation and entertainment. Again, both hotel and non-hotel respondents were similar in their recommendations. Further alternative types of recreation and entertainment venues recommended by both the hotel and non-hotel respondents were eco-tourism, geographical anomalies, and natural parks.

Among the hotel employees, 4 percent recommended Kanapaha Botanical Gardens and 8 percent of the non-hotel employees recommended Kanapaha. These botanical gardens were the only nature-based attraction recommended by hotel employees.

The Payne’s Prairie State Preserve was recommended by 3 percent of hotel employees and 3 percent of non-hotel employees. Devil’s Millhopper State Geological Site was recommended by 2 percent of the hotel employees and 5 percent of the non-hotel employees. While both are unique natural attractions which may be well-known venues to the local population, neither the Payne’s Prairie State Preserve nor Devil’s Millhopper facility were highly recommended sources of recreation and entertainment for visitors.

The only theatrical arts facility recommended by either group was the Hippodrome State Theater, with 3 percent and 7 percent, respectively, of hotel and non-hotel respondents. The Hippodrome features a variety of live plays as well as viewings of independent films and is known for having a regional draw to its audiences. Combined, 4 percent of respondents recommended this venue.
Table 3: Top 10 recommendations for recreation & entertainment

<table>
<thead>
<tr>
<th>Total venues recommended = 30</th>
<th>Full sample</th>
<th>Hotel sample</th>
<th>Non-hotel sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple recommendations per respondent permitted</td>
<td>97 respondents</td>
<td>65 respondents</td>
<td>32 respondents</td>
</tr>
<tr>
<td>Downtown Clubs</td>
<td>55 (56.7%)</td>
<td>38 (58.5%)</td>
<td>17 (53.1%)</td>
</tr>
<tr>
<td>Oaks Mall</td>
<td>17 (17.6%)</td>
<td>12 (18.5%)</td>
<td>5 (15.6%)</td>
</tr>
<tr>
<td>Univ. of Florida Campus</td>
<td>16 (16.5%)</td>
<td>12 (18.5%)</td>
<td>4 (12.5%)</td>
</tr>
<tr>
<td>Horn Museum</td>
<td>15 (15.5%)</td>
<td>11 (16.9%)</td>
<td>4 (12.5%)</td>
</tr>
<tr>
<td>Regal Cinema</td>
<td>15 (15.5%)</td>
<td>11 (16.9%)</td>
<td>4 (12.5%)</td>
</tr>
<tr>
<td>Swamp Bar &amp; Rest.</td>
<td>12 (12.4%)</td>
<td>8 (12.3%)</td>
<td>4 (12.5%)</td>
</tr>
<tr>
<td>Kanapaha Gardens</td>
<td>11 (11.3%)</td>
<td>8 (9.2%)</td>
<td>5 (15.6%)</td>
</tr>
<tr>
<td>Hippodrome Theater</td>
<td>9 (9.3%)</td>
<td>5 (7.7%)</td>
<td>4 (12.5%)</td>
</tr>
<tr>
<td>Royal Park Cinema</td>
<td>5 (5.2%)</td>
<td>5 (7.7%)</td>
<td>0</td>
</tr>
<tr>
<td>Florida Museum</td>
<td>5 (5.2%)</td>
<td>5 (7.7%)</td>
<td>0</td>
</tr>
</tbody>
</table>

*Totals more than 100 percent due to multiple responses*

Cinema theaters were a third form of frequently recommended entertainment venues provided by both hotel employees and non-hotel employees. Among the hotel workers, 12 percent recommended cinemas. Those not working in hotels recommended cinemas 8 percent of the time. Combined, the full sample of respondents recommended cinemas as a form of recreation and entertainment 11 percent of the time. Shopping was another form of recreation and entertainment recommended by respondents in the Gainesville study. Once again, specific stores were not recommended. Instead, the local mall, Oaks Mall, was recommended by 8 percent of the hotel employees and by 8 percent of the non-hotel respondents.

Local experts help

It is almost an understatement that not all Hyatt properties are totally equal in the quality of the guest service experience. For that matter, nor are Holiday Inns, McDonald's, Bennigan's, or any other branded venue with multiple storefronts. An individual brand may convey very necessary information to the traveler, but is it sufficient for the traveler to make the purchase decision given the variability that may be associated with the brand? Moreover, adventurous persons may be tired of the "tried and true" and desire an entirely new experience during their travels. The perceived local expert may therefore be summoned at these critical times to contribute information or even decide on the purchase choice. For practitioners, this highlights the importance...
of marketing their business to those individuals in the local community who are receiving referral requests from visitors at-destination.

Given that people seeking a place to stay are usually seeking a specific lodging venue recommendation (not vicinity), it should not be surprising to find specific lodging venues being recommended by Gainesville respondents. The stated premise of gratuitous referral research is that travelers expect the same as well for food service and recreational and entertainment requests. If the premise is true, then a significant number of travelers may be disappointed, even frustrated, by the local experts who provided information to general areas as opposed to specific venues.

This study is limited as to generalizability due to small samples sizes across the three segments studied. Replication of this research in other communities along with parallel research with the visitor being the target population is necessitated. Further research questions for future studies include the following:

- How does a traveler select the “local expert” and is there a difference in received value from traditional informational sources (hotel concierge; local visitor’s bureau) versus an expert from the community a large?
- Why does there appear to be such variability in frequency of requests for like respondents?
- Are there personality characteristics that make a person more likely to obtain referrals than others?
- What is the post-referral experience actually like for the visitor? The exploration of similarities and differences across destinations will contribute to a better understanding of the phenomenon of at-destination search strategies and decision processes utilized by visitors.
- What is the proposed magnitude in tourist dollars as a result of gratuitous referrals?
- Are there methods to be used so that businesses may manage the process of gratuitous referrals?

The current study gives practitioners an insight into where local experts refer visitors to a destination to go. This is of value to them in order to determine how much marketing should be done at the destination, not with the visitors, but with the local community, especially the hospitality community. Many businesses spend a large portion of their advertising and promotional budget away from home trying to attract visitors. This current study and the previous gratuitous referral studies have shown conclusively that many visitors to a destination wait to make many travel decisions.
until they are at-destination and rely on the recommendation of the locals.

Initial findings from the limited studies suggest cultural differences may mediate both the visitor and local expert actions/responses. This may be a function of national, religious, or related cultural factors, but it also may be a function of rural versus urban versus metropolitan geography. It could just as easily be due to the interplay with destination cities from the traveler’s perspective and from the referrer’s perspective.

References

5. Fodness and Murray.
7. Ibid.
10. Ibid.
14. Ibid.
19. Ibid.
24. Gallup Organization.

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A multi-criteria decision-making approach to compare and contrast the websites of China-based and U.S.-based hotels

By Rob Law and Kathy Liang

The improvement in living standards and the development of telecommunications have led to a large increase in the number of Internet users in China. It has been reported by China National Network Information Center5 that the number of Internet users in China has reached 33.7 million in 2001, ranking the country third in the world. This figure also shows that more and more Chinese residents have accepted the Internet and use it to obtain information and complete their travel planning. Milne and Ateljevic6 stated that the integration of computing and telecommunications would create a global information network based mostly on the Internet. The Internet, especially the World Wide Web, has had a great impact on the hospitality and tourism industry in recent years. The WWW plays an important role in mediating between customers and hotel companies as a place to acquire information acquisition and transact business.

The use of the Internet enables hospitality and tourism businesses to reach customers worldwide easily and cost-effectively. Wan pointed out that the Internet has changed the daily lives of individuals, the operation of companies and organizations, and the ways by which they seek information. Jeong stated that many lodging companies have been striving to achieve and retain a competitive advantage in the age of electronic commerce by developing unique and creative products and services. However, the current stage of development of China-based hotel websites and whether such websites can meet the needs of customers is largely unknown. Since the United States is the country in which the Internet originated and one of the most developed regions of the world in terms of online hotel applications, a study to compare the performance of hotel websites in the U.S. and China should, therefore, be of interest to the hotel industry in China.

A few published articles have compared and contrasted hotel and tourism websites in terms of reservation services between Asian and North American airline websites1, airfare reservation services between
Asian-based and North American-based travel websites, and hotel reservation services between Asian-based and North American-based travel websites. The empirical findings of these frequency-counting studies all indicated that the Asian-based websites were significantly outperformed by the North American-based websites. The existing hospitality and tourism literature, however, offers no insights on the performance of China-based hotel websites relative to their Western counterparts. Huang and Law and Liang and Law briefly discussed the weak contents of hotel websites in China, but offered no information about the performance of these websites relative to those of other regions. In view of the importance of Internet applications to the Chinese hotel industry and the absence of prior studies quantitatively evaluating the quality of China-based hotel websites, this study attempts to bridge such a gap by presenting a multi-criteria decision-making model to measure the performance of hotel websites. The developed model was then applied to the selected U.S.-based and China-based hotel websites in order to compare their performance. In this research, website performance primarily relates to functionality, which involves analyzing the richness of the information on the services/products mentioned in the website. The findings of this study, which contribute to a better understanding of the quality of hotel websites in China and the U.S., should be of interest to hospitality researchers, practitioners, policy makers, and customers.

**Literature review**

Ever since the introduction of the Internet to commercial businesses in the 1980s, researchers and practitioners have been fascinated by the unique properties and potential benefits that the technology can offer to the business world. Afuah and Tucci listed the many properties of the Internet that had a potential impact on business models and industry profitability. Examples of these properties include the Internet’s use as a mediating technology, its universality, network externalities, its use as a distribution channel, its usefulness as a time moderator, its infinite virtual capacity, its low cost standard, and its potential to reduce transaction costs. Apparently, the most important aspect of the Internet is its connectivity. That is, the ability to allow everyone to access the network, which enables data to be transferred among computer operators. The Internet connects companies with companies, companies with customers, and people with people without limitations in time, space, and
hardware/software platforms. Liu further argued that the Internet offers substantial advantages over traditional means of communication such as reduced costs of information exchange, increased speed of information transfer and retrieval, increased customer involvement in and control of transactions, and greater flexibility in using the marketing mix.

Anyumba stated that the Internet has been referred to as the “Information Superhighway” for several reasons. First, there is probably no major business that does not have a website on the Internet. Second, the information is available and updated, and grows on a continuous basis. In addition, information can be accessed from any point on earth and at any time. Lastly, the Internet can convey the written script, and visual, static, and dynamic images, as well as sound. The Internet can allow an organization to conduct a more targeted business 24 hours a day with a potential to reach a worldwide audience with access to connections, irrespective of geographical locations, time zones, or computer systems. In the context of hotels, the Internet provides an equal opportunity to access the market for all types/sizes of properties. The major benefit of marketing on websites is the larger degree of interactivity compared to other communication media.

According to Deitel, Deitel, and Steinbuhler, the Internet is one of the most influential inventions in terms of the profound impact it has had on humankind. The Internet allows people to work more easily and quickly, enables information to be accessible instantly and conveniently around the world, and helps individuals and small businesses to get worldwide exposure. In short, the Internet has changed the way people do business.

Internet marketing is well suited for hospitality and tourism related products and services because of the distinctive high-priced, high-involvement, and well-differentiated characteristics of such products and services. Morrison et al. also pointed that there were six potential advantages for hotels of having a Web presence. These advantages include cost reductions, revenue growth, niche marketing, improved customer satisfaction, quality improvement, and the ability to address other critical business or customer needs. Similarly, Van Hoof and Combrink conducted a research that showed that there were six major benefits for hotels, including: increased exposure for the hotel, another means of advertising and marketing, faster and better communication, a way of generating reservations, a good source of information on clients and
the industry, and a way to save costs and time. The hotel industry in China is a fast-changing one, and the Internet has thus had a great impact on it. Liang and Law stated that many hotels in China had already realized the importance of the Internet, and had been establishing or enhancing their websites. These hotel managers hoped that their websites would enhance the image of their hotels, attract more customers, and promote sales. Gilbert, Powell-Perry, and Widioso emphasized that the real determinant in using websites was the willingness of customers to book hotel rooms and to search for hotel information.

Some prior studies have been performed to measure the performance of hotel and tourism websites using content analysis. For instance, Doolin, Burgess, and Cooper proposed an eMICA model, consisting of three stages, to examine New Zealand's twenty-six RTOs (Regional Tourism Organizations). The three stages used different levels of business processes, including Web-based promotions, the provision of information and services, and the processing of transactions. Each RTO site was then assigned an appropriate stage and layer in the eMICA model based on the level of development of the site. The New Zealand RTOs generally displayed moderate-to-high levels of interactivity. This was consistent with their role of providing comprehensive information of the marketing of destinations. The resulting data set was checked against Australian regional tourism sites. Doolin, Burgess, and Cooper found that there was a good level of consistency between these two countries. In other words, most of the organizations in New Zealand and Australia were at a relatively advanced stage in the adoption of the Internet.

Morrison et al. presented a framework that applied the balanced scorecard approach to evaluate the performance of small hotels in Scotland. The framework consisted of four perspectives. Each of these perspectives, in turn, comprised different success factors. Individual scores were then assigned to all of the selected factors, based on a set of rating criteria. A drawback to the modified balanced scorecard approach is the lack of involvement from the user. Similar to Morrison et al.'s approach, Chung and Law and Law and Chung conducted a study to analyze the contents of hotel websites. They proposed a stepwise refinement multi-dimensional conceptual framework, and then used this framework to assess hotel websites in Hong Kong. Empirical findings showed that there were significant differences among different categories of hotels. This model covered the
major areas of application of hotel websites such as their use as a propaganda tool, communication tool, marketing and distribution channel, and customer service centre, as well as the management of websites. The proposed multi-dimensional conceptual framework, however, has two limitations. The first limitation is the restrictive involvement of hotel practitioners during the stage of developing the framework. The second limitation is the assumption of equal variance between different website dimensions and attributes, which unfortunately does not represent the reality in a multi-criteria decision-making environment.

To summarize, the empirical findings on the performance of hotel websites can unambiguously allow customers to determine the contents of a hotel’s website and the level of services offered. The findings can also help hotel practitioners identify their relative standing in the industry, and to improve on factors in which they are weak.

Methodology

the modeling process

Following the scoring model presented by Taylor and the assessment tool discussed by Evans and King and Zeleny, this research proposed that the overall functionality performance of a hotel website can be measured by a total score $T$ in the following form:

$$ T = \sum_{i=1}^{t} w_i \cdot r_i $$

where $w_i$ and $r_i$ represent the weight (relative importance) and rating (relative performance) of the attribute (factor) $i$ for a total of $t$ attributes (multi-criteria). Again, functionality refers to the richness of the information offered on a website.

On the basis of prior studies on hotel functionality measurements, this research then formulated the dimension vector $D = [d_1, d_2, ..., d_l]$ for $l$ dimensions of a hotel’s website, which determines the performance of the website. Prior studies have stated that measurements of the performance of a hotel website should be multi-dimensional. This means that a website should be evaluated on more than one dimension. Hence, this stage identified $A_{d_1} = [a_{d1,1}, a_{d1,2}, ..., a_{d1,t}], A_{d_2} = [a_{d2,1}, a_{d2,2}, ..., a_{d2,t}], ..., A_{d_l} = [a_{dl,1}, a_{dl,2}, ..., a_{dl,t}]$, where each $A_d$ is the attribute vector that contains the necessary attribute components for the dimension $i$, for $i = 1, 2, ..., l$.

The next stage of this research involved a panel of experienced users of hotel websites, including hoteliers, business travelers, leisure travelers, travel agents, and online reservations managers. A convenient sampling approach was used in early-mid 2003 to invite people in China to become...
members of the panel. In this stage, a jury of executive opinion was asked to comment on, revise, and finally validate the contents of the dimension and attribute vectors, $A_1, A_2, \ldots, A_e$, acquired at the previous stage. Tables 1 to 5 listed the validated dimensions and their associated attributes. This validation panel then

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1. Photos</td>
<td>Key factor(s): Exterior photo, Room photo, Restaurant photo Sub-factor(s): Other facilities and services photo Special factor(s): Photo Gallery</td>
</tr>
<tr>
<td>A2. Hotel Description</td>
<td>Key factor(s): Brief introduction Sub-factor(s): Fact sheet Special factor(s): Event, History, Honor, Welcome Message</td>
</tr>
<tr>
<td>A3. Hotel Facilities</td>
<td>Key factor(s): Room division, Restaurant division Sub-factor(s): Health facilities, Entertainment facilities, Convention facilities Special factor(s): Business center, Shopping arcade, Transportation service, Travel service</td>
</tr>
<tr>
<td>A4. Guest Room Facilities</td>
<td>Key factor(s): Room type Sub-factor(s): In-house service and facilities Special factor(s): Layout of room</td>
</tr>
<tr>
<td>A5. Hotel Location Map</td>
<td>Key factor(s): Map with definition Sub-factor(s): Distance information, Direction guide, Streets and major sites around the hotel Special factor(s): Enlargeable map, Download function</td>
</tr>
<tr>
<td>A6. Hotel Promotion</td>
<td>Key factor(s): Special offer Sub-factor(s): Packages Special factor(s): Niche market promotion</td>
</tr>
<tr>
<td>A7. Virtual Tour</td>
<td>Key factor(s): With virtual tour Sub-factor(s): Virtual tour with guest room, restaurant, lobby Special factor(s): With other facilities and services</td>
</tr>
<tr>
<td>A8. Restaurant</td>
<td>Key factor(s): Cuisine features and type Sub-factor(s): Hours of operation, location, bar Special factor(s): Menu, reservations, special promotions</td>
</tr>
<tr>
<td>A9. Frequent Guest Program</td>
<td>Key factor(s): Program information, benefits and privileges Sub-factor(s): Terms and conditions, online enrollment Special factor(s): Personalized web page, create/modify Profile, Privacy Statement</td>
</tr>
<tr>
<td>A10. Meeting Planner/MICE</td>
<td>Key factor(s): Conference facilities and service information Sub-factor(s): Layout of function room, capacity, size, area Special factor(s): Meeting planner</td>
</tr>
<tr>
<td>A11. Employment Opportunities</td>
<td>Key factor(s): Employment page Sub-factor(s): Job description, qualifications required, contact information Special factor(s): Online application form, career prospects</td>
</tr>
</tbody>
</table>

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Table 2: Attributes in the dimension of customers’ contact information

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
</table>
| B1. Email Address           | Key factor(s): Prime email address  
Sub-factor(s): Email address with own domain suffix  
Special factor(s): Email address by departments/person |
| B2. Telephone Number        | Key factor(s): Prime telephone number  
Sub-factor(s): Country code, area code  
Special factor(s): Direct telephone to departments/person, toll-free telephone number |
| B3. Hotel Address           | Hotel Address                                                               |
| B4. Fax Number              | Key factor(s): Prime fax number  
Sub-factor(s): Country code, area code  
Special factor(s): Direct fax to departments/person |
| B5. Online Forum            | Online forum                                                                |
| B6. Feedback Form           | Key factor(s): Feedback form/contact forms  
Sub-factor(s): Prompt reply |
| B7. Frequently Asked Questions | With FAQ Page                                                           |
| B8. What’s New/PRESS Release| Key factor(s): With WHAT’S NEW or PRESS RELEASE page  
Sub-factor(s): With updated information  
Special factor(s): Press contact information, media inquiries, journalists registration |
| B9. Person to Contact       | Key factor(s): Name  
Sub-factor(s): Email address, telephone number  
Special factor(s): Contact person by department/position |

Note: "*" indicates the attribute with only one factor  
"**" indicates the attribute with key factor(s) and sub-factor(s).

After that, the validation panel determined a subjective rating scale $r_{ai}$ for attribute $a_i$, for $i,j$ in the following form:

(i) For attributes with only one factor, 0 was assigned if the factor was not listed and 5 is assigned if the factor was listed.
Table 3: Attributes in the dimension of reservations information

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1. Room Rates</td>
<td>Key factor(s): Room rate for different types of rooms Sub-factor(s): Internet rate Special factor(s): Niche market rate or last-minute rate</td>
</tr>
<tr>
<td>C2. Check Rate and Availability</td>
<td>Key factor(s): Check rate and availability Sub-factor(s): With instant response</td>
</tr>
<tr>
<td>C3. Online/Real Time Reservation</td>
<td>Key factor(s): With online reservation function Sub-factor(s): Instant confirmation</td>
</tr>
<tr>
<td>C4. Reservation Policy</td>
<td>Key factor(s): With reservation policy Sub-factor(s): Guarantee policy, cancellation policy Special-factor(s): Family plan or children's plan</td>
</tr>
<tr>
<td>C5. View or Cancel Reservation</td>
<td>Key factor(s): Online cancellation, online retrieval Sub-factor(s): Instant response</td>
</tr>
<tr>
<td>C6. Worldwide Reservation Phone Numbers</td>
<td>With worldwide reservation phone numbers</td>
</tr>
<tr>
<td>C7. Security Payment System</td>
<td>Key factor(s): Encryption system Sub-factor(s): Payment instruction, credit card information</td>
</tr>
<tr>
<td>C8. Check-in and Check-out Time</td>
<td>Key factor(s): With such information Sub-factor(s): Early check-in and late check-out policy</td>
</tr>
<tr>
<td>C9. Special Request Form</td>
<td>Special request form</td>
</tr>
<tr>
<td>C10. Payment Option</td>
<td>With payment option</td>
</tr>
<tr>
<td>C11. Privacy Policy</td>
<td>With privacy policy</td>
</tr>
<tr>
<td>C12. Currency Converter</td>
<td>Currency converter</td>
</tr>
</tbody>
</table>

Note: ** indicates the attribute with only one factor 
* indicates the attribute with key factor(s) and sub-factor(s).

(ii) For attributes with key factor(s) and sub-factor(s), 0 was assigned if no attribute was listed, 1 was assigned if a few factors were listed, 2 was assigned if most of the key factors or a few key factors with some sub-factors were present, 3 was assigned if all of the key factors were found, 4 was assigned if key factors and some sub-factors were listed, and 5 was assigned if key factors and all sub-factors were listed.

(iii) For other attributes, 0 was assigned if no attribute was found, 1 was assigned if a few factors were present, 2 was assigned if all key factors were listed, 3 was assigned if some key factors and some sub-factors or some special factors were listed, 4 was assigned if key factors and all sub-factors were present, and 5 was assigned if all key-factors and sub-factors and most or all special factors were found.

The sampling process

The U.S. is the origin of the Internet and the region with the largest number of Internet users in the world, while China is one of the fastest-growing...
### Table 4: Attributes in the dimension of information on surrounding area

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
</table>
| D1. Transportation | Key factor(s): How to get to the hotel  
Sub-factor(s): Limousine service or subway/ferries/taxis/cars/shuttle buses  
Special factor(s): With direction or booking functions |
| D2. Airport Information | Key factor(s): How to get to/from the airport  
Sub-factor(s): Distance information, timetable  
Special factor(s): Other airport information |
| D3. Main Attractions of the City | Key factor(s): With page introducing attractions  
Sub-factor(s): Distance information, transportation mode  
Special factor(s): With detailed guide |
| D4. General Information on the City | Key factor(s): Introduction to the city  
Sub-factor(s): Online clock or calendar, weather, currency  
Special factor(s): Entertainment, dining, shopping, business tips |
| D5. Public Holidays | Public holidays |

**Note:** "*" indicates the attribute with only one factor

### Table 5: Attributes in the dimension of the management of the website

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*E1. Up-to-date Information on the Site</td>
<td>Contains up-to-date information</td>
</tr>
</tbody>
</table>
| *E2. Multilingual Site | Key factor(s): Two Languages  
Sub-factor(s): More than two languages |
| *E3. Site Map | Site map |
| *E4. Search Function | Search function |
| *E5. Link to Partners | Key factor(s): With linkage  
Sub-factor(s): With linkage to partners and more useful sites |
| E6. Website Design/Multimedia | Key factor(s): 360-degree panoramic photos  
Sub-factor(s): Audio/video or live talk on the site  
Special factor(s): Flash, flash skip, picture zoom-in/out |

**Note:** "*" indicates the attribute with only one factor  
"*" indicates the attribute with key factor(s) and sub-factor(s).
markets in the world and recently became the region with the world's second-largest number of Internet users. As previously stated, the primary objective of this study is to build a multi-criteria decision-making model to compare and contrast the functionality performance of China-based and U.S.-based hotel websites.

To ensure that the selected hotel websites were comparable, the selection criteria included: i) independent hotels, ii) business hotels in major cities, and iii) hotels of three stars or above. The star-rating systems in both regions are similar, and hotels in lower categories were excluded because they have a lower tendency to use technology. The process of searching for hotel websites was done through expedia.com, ctrip.com, and google.com. Eventually, ninety hotel websites were selected for each region, with thirty websites in each category of hotel.

**The evaluation process**

At this stage, a numeric value \( R_{a_j} \) was assigned to each attribute in \( A_{a_j}, A_{a_j}, ..., A_{a_j} \), representing the rating of the attribute and using the judgmental rating scale \( r_{a_j} \) developed in the modeling process. Two independent evaluators, who were experienced hotel website users, assessed each of the selected hotel websites. Figure 1 delineates the evaluation process. Such a process can detect and eliminate potential bias or misinterpretation. Wan, Sweeney, and Evans and King also supported the use of multiple assessors in the process of evaluating a website. For each hotel website, the empirical outcome in this process was a set of rating scores \( \{R_{a_1}, R_{a_2}, ..., R_{a_{n_i}}, R_{a_{n_i}}, R_{a_{n_i}}, ..., R_{a_{m_i}}, ..., R_{a_{m_i}}, R_{a_{m_i}}, ..., R_{a_{m_i}}\} \), denoted by \( R \) for all attributes in \( A_{a_1}, A_{a_2}, ..., A_{a_i} \).

**Figure 1: A hotel website evaluation process**

![Diagram of the evaluation process]

Score A given by Investigator A
Score B given by Investigator B
The functionality performance score of an attribute \( a_{i,j} \) was then reflected by the corresponding element in \( R \). Next, the performance score of a dimension \( d_{k} \), denoted by \( T_{d_{k}} \) was computed by:

\[
T_{d_{k}} = 20 \times \sum_{i = 1} A W_{adj} x R_{adj} \ldots \quad (2)
\]

The overall relative weight for all attributes, in contrast to the relative weight within a dimension, was then computed. The overall weight \( W_{a} \) of attribute \( a_i \) was obtained by:

\[
W_{a} = 20 x w_{adj} x w_{a} \ldots \quad (3)
\]

After that, let \( W = [W_{a1}, W_{a2} \ldots, W_{a10}, W_{a11}, W_{a12} \ldots, W_{a10}, W_{a11}, W_{a10} \ldots, W_{a1}, W_{a2} \ldots, W_{a10}] \) and the total performance score \( T \) of a hotel website was computed by:

\[
T = W^T R \ldots \quad (4)
\]

Hence, the performance scores for dimensions and for the whole website are in the range of 0 to 100, inclusive. A high score indicates that the performance of a specific measurement is good, whereas a low score is associated with weak performance.

**Findings and analysis**

The results of the panel discussion on the weights of all dimensions, and the associated attributes in each dimension are presented in Tables 6 to 11.

As presented in Table 6, among the perceived weights of all dimensions, the most important dimensions were Facilities Information and Reservations Information, which received relative weights of 26.38 and 26.13, respectively. The least important dimension was Surrounding Area Information, which received a weight of 11.62. Such findings appear reasonable because users of hotel websites and potential online purchasers view information on facilities and reservations as more important than information on the surrounding area. Similarly, Tables 7 to 11 list the weights of all attributes in each of the five dimensions.

The functionality performance of the selected hotels, grouped in different hotel categories, is presented in Tables 12 to 15.

Table 12 shows the performance results of the China-based three-star hotels and the U.S.-based three-star hotels. The U.S.-based hotel websites significantly outperformed the China-based hotel websites in all but one of the included dimensions. The only dimension that does not show a significant difference is Customers' Contact Information. In addition, the overall performance score of the U.S.-based three-star hotels is significantly larger than that of their corresponding Chinese counterparts.
Table 6: Weight scores of dimensions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities Information</td>
<td>26.38</td>
</tr>
<tr>
<td>Reservations Information</td>
<td>26.13</td>
</tr>
<tr>
<td>Customers' Contact Information</td>
<td>18.25</td>
</tr>
<tr>
<td>Management of Website</td>
<td>17.63</td>
</tr>
<tr>
<td>Surrounding Area Information</td>
<td>11.62</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 7: Weight scores of facilities information

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Weighted Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photos of Hotel Features</td>
<td>15.38</td>
</tr>
<tr>
<td>Hotel Location Maps</td>
<td>11.38</td>
</tr>
<tr>
<td>Hotel Facilities</td>
<td>11.00</td>
</tr>
<tr>
<td>Hotel Description</td>
<td>10.75</td>
</tr>
<tr>
<td>Guest Room Facilities</td>
<td>10.00</td>
</tr>
<tr>
<td>Hotel Promotions</td>
<td>9.88</td>
</tr>
<tr>
<td>Virtual Tours</td>
<td>9.50</td>
</tr>
<tr>
<td>Frequent Guest Program</td>
<td>7.25</td>
</tr>
<tr>
<td>Restaurant</td>
<td>7.13</td>
</tr>
<tr>
<td>Meeting Planner/MICE</td>
<td>5.38</td>
</tr>
<tr>
<td>Employment Opportunities</td>
<td>2.38</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 8: Weighted mean scores of customers' contact information

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Weighted Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Address</td>
<td>20.13</td>
</tr>
<tr>
<td>Telephone Number</td>
<td>15.00</td>
</tr>
<tr>
<td>Hotel Address</td>
<td>11.88</td>
</tr>
<tr>
<td>Fax Number</td>
<td>11.25</td>
</tr>
<tr>
<td>Person to Contact</td>
<td>11.13</td>
</tr>
<tr>
<td>Feedback Form</td>
<td>9.38</td>
</tr>
<tr>
<td>Frequently Asked Questions</td>
<td>8.25</td>
</tr>
<tr>
<td>What's New/Press Release</td>
<td>7.75</td>
</tr>
<tr>
<td>Online Forum</td>
<td>5.25</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
### Table 9: Weighted mean scores of information on reservations

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Weighted Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check Rates and Availability</td>
<td>17.75</td>
</tr>
<tr>
<td>Room Rates</td>
<td>13.25</td>
</tr>
<tr>
<td>Online/Real Time Reservation</td>
<td>12.50</td>
</tr>
<tr>
<td>Securities Payment System</td>
<td>9.50</td>
</tr>
<tr>
<td>View or Cancel Reservation</td>
<td>8.38</td>
</tr>
<tr>
<td>Payment Option</td>
<td>7.25</td>
</tr>
<tr>
<td>Reservation Policy</td>
<td>7.00</td>
</tr>
<tr>
<td>Worldwide Reservation Phone Numbers</td>
<td>6.00</td>
</tr>
<tr>
<td>Privacy Policy</td>
<td>6.00</td>
</tr>
<tr>
<td>Currency Converter</td>
<td>4.50</td>
</tr>
<tr>
<td>Check-in and Check-out Times</td>
<td>4.38</td>
</tr>
<tr>
<td>Special Request Form</td>
<td>3.50</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### Table 10: Weighted mean scores of information on the surrounding area

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Weighted Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>28.13</td>
</tr>
<tr>
<td>Airport Information</td>
<td>27.00</td>
</tr>
<tr>
<td>Main Attractions of the City</td>
<td>20.38</td>
</tr>
<tr>
<td>General Info. on the City</td>
<td>15.25</td>
</tr>
<tr>
<td>Public Holidays</td>
<td>9.25</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### Table 11: Weighted mean scores on the management of the website

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Weighted Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Function</td>
<td>24.50</td>
</tr>
<tr>
<td>Website Design/Multimedia</td>
<td>19.88</td>
</tr>
<tr>
<td>Up-to-date Information on the Site</td>
<td>14.75</td>
</tr>
<tr>
<td>Link to Partners</td>
<td>14.38</td>
</tr>
<tr>
<td>Multilingual Site</td>
<td>14.00</td>
</tr>
<tr>
<td>Site Map</td>
<td>12.50</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
Similar to the three-star hotels, the U.S.-based four-star hotel websites received performance scores significantly higher than those of the China-based four-star hotel websites in four of the five dimensions (Table 13). The dimension that does not show a significant difference is Customers' Contact Information. Again, the overall performance score of the U.S.-based four-star hotel websites is significantly larger than that of the China-based four-star hotels.

Likewise, Table 14 presents the performance scores of five-star hotels that were included. In this hotel category, U.S.-based hotel websites significantly score higher than China-based hotel websites in all dimensions and in overall website performance.

**Table 12: Comparison of China-based and U.S.-based three-star hotels**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>China (n=30) Mean (Std. Deviation)</th>
<th>U.S. (n=30) Mean (Std. Deviation)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Performance</td>
<td>27.31 (6.64)</td>
<td>54.45 (11.37)</td>
<td>0.000*</td>
</tr>
<tr>
<td>Surrounded Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of Website</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at P= 0.05 based on independent samples t test.

**Table 13: Comparison of China-based and U.S.-based four-star hotels**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>China (n=30) Mean (Std. Deviation)</th>
<th>U.S. (n=30) Mean (Std. Deviation)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Performance</td>
<td>30.76 (8.32)</td>
<td>57.20 (8.25)</td>
<td>0.000*</td>
</tr>
<tr>
<td>Surrounded Area</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management of Website</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at P= 0.05 based on independent samples t test.
Table 14: Comparison of China-based and U.S.-based five-star hotels

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>China (n=30)</th>
<th>U.S. (n=30)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
</tr>
<tr>
<td>Facilities Information</td>
<td>43.66</td>
<td>12.98</td>
<td>71.96</td>
</tr>
<tr>
<td>Customers' Contact Information</td>
<td>44.21</td>
<td>16.81</td>
<td>53.30</td>
</tr>
<tr>
<td>Reservations Information</td>
<td>19.63</td>
<td>22.26</td>
<td>72.65</td>
</tr>
<tr>
<td>Surrounding Area Information</td>
<td>8.75</td>
<td>11.42</td>
<td>30.25</td>
</tr>
<tr>
<td>Management of Website</td>
<td>32.57</td>
<td>11.08</td>
<td>53.61</td>
</tr>
<tr>
<td>Overall Performance</td>
<td>31.49</td>
<td>11.60</td>
<td>60.87</td>
</tr>
</tbody>
</table>

*significant at $\alpha=0.05$ based on independent samples t-test.

Table 15: Comparison of all China-based and U.S.-based hotels

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>China (n=90)</th>
<th>U.S. (n=90)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
</tr>
<tr>
<td>Facilities Information</td>
<td>41.42</td>
<td>10.24</td>
<td>62.04</td>
</tr>
<tr>
<td>Customers' Contact Information</td>
<td>44.36</td>
<td>14.16</td>
<td>49.89</td>
</tr>
<tr>
<td>Reservations Information</td>
<td>18.06</td>
<td>17.56</td>
<td>72.49</td>
</tr>
<tr>
<td>Surrounding Area Information</td>
<td>6.43</td>
<td>9.80</td>
<td>31.89</td>
</tr>
<tr>
<td>Management of Website</td>
<td>29.67</td>
<td>11.21</td>
<td>49.96</td>
</tr>
<tr>
<td>Overall Performance</td>
<td>29.85</td>
<td>9.27</td>
<td>58.96</td>
</tr>
</tbody>
</table>

*significant at $\alpha=0.05$ based on independent samples t-test.

Lastly, Table 15 shows the performance results of all of the hotel websites in the U.S. and China that were included. In this research, the performance scores of the selected U.S.-based hotel websites were significantly larger than those of the China-based hotel websites in all dimensions and in the overall measurement. Apparently, U.S.-based hotel websites mainly use the Internet as a booking channel, whereas China-based hotel websites used the Internet as a cyber-brochure. This result is consistent with the findings of Huang and Law", which stated that the websites of China-based hotels look like "electronic brochures," whereas the websites of international hotels are "distribution and marketing channels."

Empirically speaking, the China-based hotel websites do not perform as...
well as their U.S.-based counterparts. In general, all dimensional and overall website performance scores for the China-based websites are less than 50, indicating that the Chinese hotels have not invested enough in their websites. The dimension in the China-based hotels websites that received the highest performance score is Customers’ Contact Information, which, unfortunately, is not an important dimension (Table 6). This finding is probably due to an insufficiency or absence of knowledge on website management on the part of hotel managers. It is true that these hotel managers have established an online presence for the hotel. However, these managers seemingly do not know how to provide the kind of content in their websites that would meet the needs of users. Basically, all dimensions and attributes on the China-based hotel websites need urgently need to be improved if the hotel industry is to remain competitive in the present business environment.

U.S.-based hotel websites, by contrast, do perform satisfactorily in most measurements. In particular, these websites perform best in Reservations Information, one of the most important dimensions, as indicated in Table 6. Such results indicate that hotel managers in the U.S. do take advantage of the Internet as an online distribution and booking channel. With the increasing number of online customers, hotel managers in the U.S. need to be aware that providing good reservation services and facilities information may not suffice to serve the large needs of customers. In other words, to attract new customers and to retain existing customers, other dimensions of information should also be improved.

Conclusions

This study aims to measure the performance of hotel websites in the U.S. and China, and to compare and contrast selected websites in these two regions. On the basis of a multi-criteria decision-making model, a total of one hundred and eighty hotel websites were evaluated and analyzed. The evaluation included five dimensions and forty-three attributes. Empirical findings reveal that U.S.-based hotel websites significantly score higher than China-based hotel websites in all measurements, except in Customers’ Contact Information for three-star and four-star hotels.

More international hotel chains have entered China and are competing with China's independent hotels. Although there is not much difference between China-based hotels and international hotels in terms of the provision of facilities and services, the disparity in their Internet applications will unambiguously influence their ability to compete. At present, most
customers in China still use conventional means to communicate with hotels, but many American customers have chosen to use the Internet to make reservations. The rapid development of the Internet in China will soon change the booking behavior of customers. Hence, hoteliers in China need to spend more effort developing their websites to meet the changing demands of the market.

As it has joined the World Trade Organization and will host the 2008 Olympic Games, China will have to accelerate the degree to which it is opening up to the world. Since the Internet has become an important medium for interactive communications, the hotel industry in China should take full advantage of the technology to distribute products, offer customer services, and penetrate markets by setting up virtual hotels. This research, however, has shown that there is a large gap in the functionality performance of websites between China-based hotels and U.S.-based hotels. Based on the empirical findings, China-based hotels should use their websites as a tool for interactive communication, a distribution channel, and a customer service center, instead of only as a tool for promotion.

As a tool for promotion, a China-based hotel website can help potential customers browse through the products and services that are offered in the hotel. In the same way, a hotel can use its website as a tool to enhance communications with customers. Likewise, hotels can use their websites as a channel to handle and process online reservations. As a customer service center, the provision of more value-added services such as information of the surrounding area can strengthen the understanding of customers and, hence, their confidence in the hotel. Lastly, a well-managed hotel website makes the site more attractive to users.

The number of commercial sites has been increasing and, with no signs of slowing down, travel has been the fastest-growing segment of online commerce. By the year 2020, China will become the world's number one tourist destination, with annual arrivals of 130 million, and will rank fourth among the world's top tourist-generating countries. It will therefore be important for the hotel industry in China to make the same use of their websites as U.S.-based hotels do.

While the findings are interesting, there are two limitations to this study. First, the members of the validation panel were chosen using convenience sampling. In addition, panel members were all from China. Such limitations could lead to a lack of comprehensiveness in the views on developing the multi-criteria decision-making model. Naturally, one possibility for future research is to further enhance
and, eventually, to generalize, the measurements of the functionality or content of hotel websites by incorporating the views of a large group of users of hotel websites. In addition, it would be valuable to verify whether the research findings are in accordance with the real situation in the hotel industry. Such verifications can be performed through interviews with local hotel practitioners. This can ensure that the research findings are applicable to the local hotel industry.

References


Performance


Impact of employee management on hospitality innovation success

by Michael Ottenbacher and Michael Howley

The authors report on a survey of 185 hospitality managers to examine which employee management practices are associated with success in hospitality innovations. The results suggest that successful new hospitality projects are guided by a strategic human resource management approach, have higher levels of training, implement behavior-based evaluation of their front-line staff, and empower their employees.

Hospitality managers are challenged by the ever-increasing pace of change. It is generally recognized that the ability to successfully innovate is an effective strategic response to the changes in the turbulent business environment. Innovation activities serve several objectives. The most noticeable and least risky is to provide support to the existing business portfolio. This is, in general, a short-term aim which is often the result of incremental improvements or revisions to existing products or services.

In addition to the short-term objective, innovation attempts also focus on expanding the existing product range of the organization by creating new product generations for existing markets, or through the further extension of existing service lines to new markets.

The third objective of innovation is the continuous rejuvenation and alignment of the firm's competence base to its future product-market requirements. The final objective is the creation of break-through products and services that change the rules of the competition. This is quite difficult to achieve in the hospitality industry because hospitality firms often have the same hardware, and they can only distinguish their services through their employees.

As a consequence, service employees are enormously critical to the success of the organization they represent. They cannot only produce a service advantage or unique facet, but they also directly impact customers' satisfaction. Service firms should be customer oriented because having a customer focus produces better service quality. Furthermore, employees are responsible for personifying and implementing a customer-oriented strategy because customers often judge...
a hospitality firm largely on the service received from employees.\textsuperscript{4} It is, therefore, important that hospitality managers understand how they can encourage employees to implement a customer oriented approach.

Because of an intangible nature, the simultaneous production and consumption of services, and the importance of human factors in service delivery, employees play a more important role in service innovation than in product innovation.\textsuperscript{5} The attitudes and behaviors of service employees can significantly influence customers' perceptions of service; therefore, service organizations must find ways in which they can effectively manage employees' attitudes and behaviors so that they deliver high quality services.\textsuperscript{6} The human element in services means that service quality depends heavily on human resource strategies,\textsuperscript{7} in other words, tools for how management can effectively manage its employees.

\textbf{Total approach necessary}

Previous research into service innovation shows that success or failure is not the result of managing one or two activities very well. Instead, it is the result of a more comprehensive approach that manages a large number of aspects competently and in a balanced manner.\textsuperscript{8} Basically, it is the proficiency of the market-oriented development process and the focus on the synergy between the requirements of the new service and the resources of the firm that help determine the success of a new service.

In addition, the attractiveness of the marketplace and the ability to launch innovations that respond to the demands of the market help determine financial success for the firm. Product advantage has been identified as the number one success factor in product development. In services, however, while the service product is important, it is not considered to be the key success factor. Instead, it is the perceived quality of the interaction with the customer that is of more relevance for new services.\textsuperscript{9} The expertise and enthusiasm of frontline staff is a particularly crucial aspect, as it has a direct effect on customers' perception of service quality.

Pilot interviews conducted for this study with hospitality managers indicated that the most critical aspect in hospitality innovation is employees. The relevance of employees in new service development (NSD) efforts has been alluded to in previous service innovation studies, but not to such an extent. Korczynski\textsuperscript{10} argues that service management should leave behind the old production line approach and concentrate on the
modern application of systematic human resource management. Such a modern application involves careful selection of employees, employee training, empowerment, low formalization, behavior-based evaluation, and a strategic approach to human resource management. This study will test the importance of these elements within hospitality innovation.

**Human resources valued**

The organizational strategy literature has moved toward the resource-based theory of competitive advantage, emphasizing the internal resources of an organization and viewing human resources as a source of value. Competitive advantage through employees is becoming more important because other sources of competitive advantage are easier to access and, therefore, easier to copy. Effective, internally homogenous and innovative human resource management activities can be a competitive advantage through employees and, for this reason, to enhance their competitive position, service firms should develop outstanding human resource practices.

At least three aspects of human resource management elicit desired employee behavior as follows: appraisal, selection, training, and staff development. Other studies found that highly selective staffing and training were positively linked to organizational performance. Service quality problems are often caused through insufficient hiring and selection procedures because management often hires employees with skill deficiencies.

A customer oriented strategy is in general personified and implemented through service employees. Therefore, it is important to understand how managers can encourage employees to carry out a customer-oriented strategy. Hartline et al. suggest three aspects that management can control in order to support a customer-oriented strategy: formalization, empowerment, and behavior-based evaluation. Behavior-based evaluation is when employee performance is related to customer-oriented behaviors (e.g. friendliness) rather than specific work-related outcomes (e.g. quota). Empowerment of employees in the service industry is not only advisable, but almost unavoidable, because employees need flexibility to adapt their behaviors to the demands of each service encounter. Low formalization also suggests that work should not be controlled by strict rules and procedures in order to give employees the ability to respond to customer needs. Research showed that employees' adaptability in the service sector is a key aspect that affects positive performance.
German hotels surveyed

The literature review revealed six factors linked to successful new hospitality innovations: strategic human resource management (SHRM), selective staffing, training of employees, behavior-based evaluation, empowerment, and formalization. A total of 33 items to measure these factors were developed, based on a review of the appropriate literature.

A questionnaire was then sent to 480 German hotels listed in the 2000 Hotel Guide from the German Hotel and Restaurant Association. One criterion for inclusion in the study was that the organization had developed new hospitality services over the past three years. As in other success studies in NSD, hotels were contacted by telephone to identify potential respondents. The questionnaire was prepared in English and then translated into German, using the parallel-translation/double translation method. The appropriateness of the questionnaire was confirmed through the evaluation of academics knowledgeable about NSD and pretests with hospitality managers in Germany. Completed questionnaires were received from 185 hospitality managers, representing a response rate of 38.5 percent.

The sample of 185 new hotel service projects were split into two groups: successful and less successful new hotel service developments, based on the mean aggregate scores of the measures that examined NSD performance. The literature suggests a cut-off point of 3.5 on a scale of 1 to 5 when defining successful and less successful projects. The natural break in the data supported a 3.5 cutoff. To provide an overall measure of NSD performance, the average score on all 12 performance variables was computed. This study measured NSD performance along the following dimensions: total sales, market share, profitability, improved loyalty, improved image, enhanced profitability and sales of other hotel services, new markets, new customers, cost efficiencies, customer satisfaction, positive employee feedback, and competencies of employees. This procedure resulted in 120 (64.9 percent) NSD projects being classified as successful and 65 (35.1 percent) NSD projects being classified as less successful.

T-tests were conducted to assess significant differences in the mean responses on the 33 questionnaire items of successful and less successful NSD. A significance level of .05 was used for all tests.

HR management is first

The first factor, strategic human resource management (SHRM), can be defined as "the pattern of planned human resource deployments and activities intended to enable an
The key difference between traditional conceptions of human resource management and SHRM is the extent to which human resource management is integrated with the strategic decision-making processes that direct organizational efforts to cope with the environment.

The results of this study indicate that successful projects are more likely to be developed by hospitality organizations that have human resource practices which are unique and superior to the competition, play a key role in NSD, link to strategic business planning, and are flexible to changing market needs (see Table 1). These human resource management practices and employees are more likely difficult to copy, and therefore, able to attract excellent staff.

Furthermore, employees are more likely viewed as a competitive advantage. However, there appear to be no differences between successful and less successful service projects in terms of viewing employees as a cost factor. Overall, the results of the t-test suggest that a strategic human

Table 1: Comparison of successful and less successful projects on SHRM

<table>
<thead>
<tr>
<th>SHRM</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to attract excellent staff</td>
<td>3.46</td>
<td>1.10</td>
<td>2.82</td>
<td>1.16</td>
<td>3.65</td>
<td>.001</td>
</tr>
<tr>
<td>HRM practices and employees are difficult for competitors to duplicate</td>
<td>2.91</td>
<td>1.20</td>
<td>2.40</td>
<td>1.14</td>
<td>2.77</td>
<td>.006</td>
</tr>
<tr>
<td>Key role of HRM practices in the development of this service</td>
<td>3.70</td>
<td>1.28</td>
<td>2.90</td>
<td>1.30</td>
<td>3.99</td>
<td>.001</td>
</tr>
<tr>
<td>Uniqueness and superiority of HRM practices to competition</td>
<td>3.10</td>
<td>1.04</td>
<td>2.15</td>
<td>1.09</td>
<td>5.76</td>
<td>.001</td>
</tr>
<tr>
<td>Strong linking of HRM practices to strategic business planning</td>
<td>3.43</td>
<td>1.07</td>
<td>2.77</td>
<td>1.20</td>
<td>3.82</td>
<td>.001</td>
</tr>
<tr>
<td>Flexibility of HRM practices to changing market needs</td>
<td>3.67</td>
<td>1.10</td>
<td>3.27</td>
<td>1.13</td>
<td>2.33</td>
<td>.021</td>
</tr>
<tr>
<td>Employees viewed as a competitive advantage</td>
<td>4.50</td>
<td>0.89</td>
<td>4.07</td>
<td>1.21</td>
<td>2.50</td>
<td>.016</td>
</tr>
<tr>
<td>Employees not viewed as a cost factor</td>
<td>2.73</td>
<td>1.20</td>
<td>2.45</td>
<td>1.26</td>
<td>1.47</td>
<td>NS</td>
</tr>
</tbody>
</table>

Measured on a five-point scale: 1 = not at all; 5 = very well.
resource management approach is important for the success of new hospitality developments.

Selective staffing effective

One of the most effective strategies to ensure that service employees are willing and able to deliver quality service and stay motivated to perform in a customer-oriented way is to focus considerable attention on hiring and recruiting the right service personnel. Service personnel are often at lower levels within an organization, have low qualifications, and earn minimum wages; however, they are enormously important to the success of the organization they represent. Selection of high service orientation employees is a critical aspect for success in the service industry because so much depends on employee/customer interactions.

Table 2: Comparison of successful and less successful projects on selective staffing

<table>
<thead>
<tr>
<th>Selective staffing</th>
<th>Successful projects</th>
<th>Less successful projects</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carefulness of choosing new staff (1)</td>
<td>4.12 0.88</td>
<td>3.73 1.09</td>
<td>2.40 0.018</td>
</tr>
<tr>
<td>Spending a lot of time and money selecting employees (2)</td>
<td>3.76 1.07</td>
<td>3.57 0.93</td>
<td>1.20 NS</td>
</tr>
<tr>
<td>Importance of selecting the right employees (3)</td>
<td>4.72 0.71</td>
<td>4.45 1.03</td>
<td>1.83 NS</td>
</tr>
<tr>
<td>Hiring for attitudes and social skills (4)</td>
<td>3.80 1.02</td>
<td>3.60 0.91</td>
<td>1.29 NS</td>
</tr>
</tbody>
</table>

The results of the research in Table 2 suggest that of the four dimensions measured, only one displayed significant differences between successful and less successful new hospitality developments. Successful new services are more likely to have more extensive selection criteria. By contrast, there appear to be no differences between successful and less successful innovations in terms of spending a lot of time and money on selecting employees, selecting the right people, and hiring employees for attitudes and social skills. Although the dimension "importance of selecting the right employees" displays no significant differences, it should be
noted that the level of importance that is placed on employee selection was particularly high. Marketing academics argue that service quality problems are often caused through insufficient hiring and selection procedures. The importance of selective staffing outlined in the literature, especially in the service industry, could not be supported by the results of this study.

Training improves performance

Training of employees includes planned programs to improve the performance of individuals and/or groups of employees. This in turn implies changes in employees’ knowledge, skills, attitudes, and/or social behavior. Training of employees is critical in order to enhance front-line expertise and to launch preparation. If a service firm wants to have a competitive advantage through its human resources, it must invest in the necessary training programs to ensure that the workforce has the appropriate skills and abilities not only to meet short-term requirements, but also to anticipate changing job requirements over time.

The results of this study suggest that successful innovation projects take an approach where training is considered to be a high priority for the firm. Systematically structured, interpersonal, and general skills training is provided, and firms are willing to spend a lot of money on it (see Table 3). Although spending a lot

| Table 3: Comparison of successful and less successful projects on training |
|----------------------------------|------------------|------------------|-------|-------|-------|-------|
| Training                                      | Mean  | SD   | Mean  | SD   | T value | Sig |
| Training of employees is a high priority      | 3.89  | 0.93 | 3.03  | 1.12 | 5.48    | .001 |
| Systematically structured training approach was adopted | 3.58  | 1.02 | 2.77  | 1.11 | 4.91    | .001 |
| Employees with customer contact received training for interpersonal skills | 3.79  | 1.05 | 3.02  | 1.28 | 4.08    | .001 |
| Spent a lot of money on training employees    | 2.85  | 1.10 | 2.40  | 1.16 | 2.55    | .012 |
| General skills training was provided          | 4.02  | 0.92 | 3.23  | 1.25 | 4.31    | .001 |

Measured on a five-point scale: 1 = not at all, 5 = to a great extent.

Ottenbacher and Howley
of money on training employees is a significant difference compared with the less successful projects. It should be noted that the extent to which hospitality organizations as a whole spend money on training is not particular high. The above observations suggest that hospitality innovations that have a more successful performance have a higher level of training than NSD.

**Can be controlled**

A customer-oriented strategy is, in general, personified and implemented through service employees, and, therefore, it is important to understand how managers can encourage employees to perform a customer-oriented strategy. According to Hartline et al., behavior-based evaluation of front-line employees is the first factor that management can control in order to support a customer-oriented strategy.

Behavior-based evaluation is when front-line employee performance is related to customer-oriented behaviors (e.g., friendliness) rather than specific work-related outcomes (e.g., quota). Customers often evaluate service quality on the behavior of employees” or “how the service was carried out,” also called the functional quality. Furthermore, behavior-based evaluation encourages employee performance that is consistent with customer expectation of service quality and is

**Table 4: Comparison of successful and less successful projects on behavior-based evaluation**

<table>
<thead>
<tr>
<th>Behavior-Based Evaluation</th>
<th>Successful group</th>
<th>Less successful group</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Ability to provide courteous service</td>
<td>4.82</td>
<td>0.54</td>
<td>4.63</td>
</tr>
<tr>
<td>Employees’ commitment to customers</td>
<td>4.82</td>
<td>0.46</td>
<td>4.48</td>
</tr>
<tr>
<td>Ability to resolve customer complaints and problems efficiently</td>
<td>4.64</td>
<td>0.68</td>
<td>4.32</td>
</tr>
<tr>
<td>Ability to meet customer needs</td>
<td>4.66</td>
<td>0.63</td>
<td>4.43</td>
</tr>
<tr>
<td>Employees’ commitment to the hotel</td>
<td>4.64</td>
<td>0.60</td>
<td>4.35</td>
</tr>
<tr>
<td>Creativity in dealing with unique situations</td>
<td>4.43</td>
<td>0.65</td>
<td>4.08</td>
</tr>
</tbody>
</table>

*Measured on a five-point scale: 1 = not at all important; 5 = very important*
particularly suited to employees with
customer contact.38

The research results of this study
suggest that successful innovation
projects are more likely to evaluate
the performance of front-line
employees with regard to their ability
to provide courteous service, meet
customer needs, make a
commitment to customers and the
hotel, resolve customer complaints
and problems efficiently, and deal
creatively with unique situations (see
Table 4). It should be noted that the
extent to which the evaluation of
hotel employees is customer oriented
was quite high for both successful
and less successful projects. Based on
these results, it can be concluded
that successful hospitality innovation
projects have a higher level of
behavior-based evaluation of front-
line employees than projects that are
characterized by lower performance.

Empowerment can be controlled

The second factor that management
can control to support a customer-
oriented strategy is the empowerment
of employees, which in the service
industry is not only advisable, but
almost unavoidable because
employees need flexibility to adapt
their behaviors to the demands of each
service encounter.41 Empowerment
refers to the process in which
managers give employees the power
and autonomy to exercise control over
job-related situations and decisions.

Empowerment is especially
important for heterogeneous services
because in these situations employees
need flexibility to adapt their
behavior to the demands of each
service encounter, and, therefore,
can more effectively meet customer
needs. Bowen and Lawler42 suggest
that empowerment is recommended
when service delivery involves
managing a relationship as opposed
to simply performing a transaction.
Reasons for establishing a
relationship with customers are to
increase loyalty and get ideas about
improving the service delivery
system or getting new ideas about
new services.

The results of this study indicate
that successful hospitality
innovations are more likely to allow
employees to use their discretion and
judgment in solving problems (see
Table 5). Furthermore, management
is more likely to transfer responsi-
bilities, provide opportunities for
personal initiatives, and trust their
employees. This suggests that new
hotel service developments that have
a more successful performance have a
higher level of employee
empowerment than NSD with lower
performance.

Formalization reduces response

A third factor that management can
control to support a customer-
oriented strategy in new services is
Table 5: Comparison of successful and less successful projects on empowerment

<table>
<thead>
<tr>
<th>Empowerment</th>
<th>Successful projects</th>
<th>Less successful projects</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Management allows employees to use their discretion</td>
<td>3.71</td>
<td>0.96</td>
<td>3.18</td>
</tr>
<tr>
<td>Employees are allowed to use their own judgement in solving problems</td>
<td>3.83</td>
<td>0.82</td>
<td>3.33</td>
</tr>
<tr>
<td>Management encourages and provides opportunities for personal initiatives</td>
<td>4.22</td>
<td>0.75</td>
<td>3.87</td>
</tr>
<tr>
<td>Managements transfer a lot of responsibilities to employees</td>
<td>4.25</td>
<td>0.67</td>
<td>3.87</td>
</tr>
<tr>
<td>Management trusts employees</td>
<td>4.46</td>
<td>0.58</td>
<td>4.23</td>
</tr>
</tbody>
</table>

Measured on a five-point scale: 1 = not at all; 5 = to a great extent

formalization. A highly formalized environment means that decisions and work are controlled by strict rules, standard policies and procedures which reduce the ability of employees to respond to customer needs. In highly formalized jobs, employees execute standardized tasks, which are regulated by strict rules and procedures. This has the advantage of high efficiency, but lacks adaptability to changing conditions. Subsequently, employee creativity is hampered and employees have difficulties in adapting and responding to non-standardized and non-routine tasks.

The results of the research in Table 6 show significant differences between successful and less successful new hotel service developments in regard to formalization on only one of the five dimensions. Successful new services are less likely to allow employees to make their own decisions. Although this is a significant difference, less successful projects had higher levels of allowing employees to make their own decisions, which suggests that in the hospitality sector higher efficiency is more important than adaptability to changing conditions. Based on these results, it can not be supported that hospitality innovations with a low level of control of employees' work will be more successful than projects with high levels of control.

Firms face challenges

In order to gain a better understanding of how successful new hospitality innovations are developed, the human resource strategies of firms face challenges...
Table 6: Comparison of successful and less successful projects on formalization

<table>
<thead>
<tr>
<th>Formalization</th>
<th>Successful projects</th>
<th>Less successful projects</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Employees are not constantly checked for rule violations</td>
<td>2.32</td>
<td>1.12</td>
<td>2.25</td>
</tr>
<tr>
<td>New service is not highly regulated and controlled</td>
<td>3.21</td>
<td>1.09</td>
<td>2.90</td>
</tr>
<tr>
<td>Employees do not rely on strict rules and procedures</td>
<td>3.11</td>
<td>1.11</td>
<td>2.78</td>
</tr>
<tr>
<td>New service is not highly standardised</td>
<td>2.93</td>
<td>1.20</td>
<td>2.97</td>
</tr>
<tr>
<td>Employees are allowed to make their own decisions</td>
<td>1.78</td>
<td>1.00</td>
<td>2.15</td>
</tr>
</tbody>
</table>

Measured on a five-point scale: 1 = not at all; 5 = to a great extent

German hotels were examined in this study. The results provide a number of implications for hospitality academics and for hospitality managers involved in innovation projects.

Hospitality firms have to face the challenges of a turbulent market. A strategic weapon to confront the competitive market is the ability to innovate. Innovation is a source for survival and growth, but unfortunately the success rate of innovation projects is low. This study has identified aspects of employee management that can help improve the success rate of hospitality innovations. As demonstrated by the t-tests, hospitality firms should do the following:

- implement strategic human resource management practices, which are linked to the organization's strategic business planning, in order to attract excellent staff
- evaluate front-line employees' performance in relation to customer-oriented behaviors, such as their ability to provide courteous service, rather than specific work-related outcomes, such as quotas
- regard employee training as a high priority and not only train for the introduction of new projects but also provide interpersonal and general skills training
- allow employees to use their discretion and judgment to solve problems by transferring responsibilities, providing opportunities for personal initiative, and trusting them.

Four of the six employee management factors were related to success. However, two employee management factors, selective staffing
and formalization, had no significant impact on the success. The insignificance of selective staffing in hospitality innovations might be because of the staff problems in the German hospitality industry at that time. In 2002, the German hospitality sector could not fill 80,000 job openings.\(^4\) The low impact of formalization might be because of the advantages of formalized services, like high efficiency and providing structure in a complex environment. On the other hand, the nature of hospitality services includes low levels of formalization. This means there is a need for high levels of variability and non-routine tasks. Hospitality employees must be very flexible, quick and adaptable to changing conditions and needs before an innovation can be seen as fully integrated.

This research is one of the few empirical studies that provides proof that empowerment is critical for hospitality innovation. Despite the broad support for empowerment, it has practical limits and the effects of empowerment demand further empirical proof.\(^5\) The results of the t-test clearly indicated that hospitality innovations which have higher levels of employee empowerment will be more successful than projects which have low levels of empowerment. The reach results suggest that employee management practices contribute to the success of hospitality innovations.

Although this study has shown the importance of employee management in the development of successful new hospitality services, it does have limitations. The study has been conducted in only one national context, Germany. In addition, the research included only managers' perspectives. Future research should investigate if the findings from this study are applicable to other countries and should explore the views of employees or customers.

References

Walker, 2002).


22. Ibid.


24. Zeithaml and Bitner.

25. Hartline, Maxwell and McKee.


28. Hartline, Maxwell and McKee.

29. de Brentani.


35. Zeithaml and Bitner.

36. Ibid.


43. Hartline, Maxwell and McKee.

44. Ibid.


46. Zeithaml and Bitner.

47. Hartline, Maxwell and McKee.


49. Argyris.

50. Chebat and Kollis.


55. Arguirs.

Michael Ottenbacher is an assistant professor in the school of hospitality and tourism management at the University of Georgia and Michael Howley is a lecturer in the school of management at the University of Surrey.

Ottenbacher and Howley 95
Model of service quality: Customer loyalty for hotels
by Brenda Mak, Janet Sim, and David Jones

The authors investigate the relationship between loyalty and perceived service quality of hotel customers and discuss managerial implications to develop strategies to enhance loyalty of hotel customers. A survey was conducted among customers in the San Francisco Bay Area. Results indicate that customer loyalty is dependent on perceived service quality, which is observed in terms of timeliness, facilities, and ambience.

The hospitality industry has undergone tremendous tumult in recent years. Various factors have affected tourists in making traveling decisions. The danger of a terrorist attack, natural disasters such as the tsunami in South Asia, and epidemics such as the bird flu and SARS, might deter traveling and have an adverse effect on the hospitality and tourism industry. With the recent slowdown in demand and increase in competition, it is important that the hospitality industry look into factors that might improve customer loyalty and profitability. It has been shown that the cost of soliciting new customers is seven times higher than that of retaining old ones, and that maintaining loyal customers will lead to profit increases. Customer loyalty is defined as the likelihood of a customer's return to a hotel. A loyal customer may have an emotional attachment to the hotel, may be more likely to repeat his or her stay at the hotel, may be less likely to switch because of price or other promotions from a competitor.

In order to enhance the loyalty of customers, hotels have looked at various strategies that would improve the quality of their services. The service quality elements include ambience, facilities, and the timeliness of the service provided to the customer. Does better service quality always lead to better customer loyalty? Would loyalty of customers depend on the demographic characteristics of customers? Would customers with different demographic characteristics respond differently to different strategies of improving service quality? Understanding these relationships will shed light on how target segmentation...
strategies should be set up to improve customer loyalty.

**Service quality explored**

The focus of this research is to explore the antecedents of customer loyalty in the hotel industry. A survey was conducted among customers of the hotels in the San Francisco Bay Area. A confirmatory factor analysis was conducted to analyze the relationships among age, gender, perceived service quality, and customer loyalty. The latent factor of perceived service quality is exhibited in terms of ambience, facilities, and timeliness of service. The latent factor of customer loyalty is assessed in terms of perceived loyalty of the customer to the hotel.

The latent variable of perceived service quality affects the latent variable of loyalty. Studies have indicated that loyalty is affected by elements like responsiveness and services offered. In this research, the focus is on the three observable dimensions of service quality: ambience, facilities, and timeliness (or responsiveness) of services.

Ambience, which refers to "the special atmosphere or mood created by a particular environment," is an important dimension of service quality. Griffin examined seven small lodging operations in San Jose, Costa Rica, and found that ambience was one of the factors contributing to the success of the lodging operations. Research has indicated the ambience of the hotel affects customers' selection decision. Link suggested that hotel revisits could be enhanced by improving ambience to meet the needs of the target market segments. Better ambience will indicate better perceived service quality of the hotel.

A second dimension critical to the latent variable of service quality is the responsiveness or timeliness of hotel employee services. Pettitloose and Brewer, using focus groups, found that customers perceived their experience as excellent when employees were courteous, friendly, helpful, and ready to respond. Skoglan and Sigauw found that timeliness was an important measure of customer satisfaction with hotel employees.

A third dimension of the latent variable of perceived service quality is hotel facilities. Better amenities and design in the hotel would lead to better customer loyalty. Wei, Ruys, and Muller found that seniors and marketing managers in Australia considered hotel facilities to be the most important attribute in affecting customer satisfaction. O'Neil also identified hotel facilities as a significant indicator of the hotel's property value.

**Age, gender are influences**

Besides the latent variable of service quality, age and gender of the
customer may also affect the satisfaction and loyalty of the customer. Oderkerken-Schroder, De Wulf, Kasper, Kleijnen, et al. found that store loyalty was moderated by the age and gender of customers. Moutinho and Goode found that female customers tended to have slightly lower brand loyalty (t statistic = 1.67). Sneath, Kennett, and Megehee found that female customers were more risk averse and considered more social related factors in making purchase or adoption decisions.

Homburg and Giering investigated the relationship between brand loyalty, age, and gender. They found that a man's decision to purchase the next car from the same dealer was strongly determined by his satisfaction within the functionality of the product itself; whereas a woman's loyalty to a car dealer was determined by her personal interaction during the sales processes. They also found that age affected brand loyalty. Older customers tended to focus their attention on their experienced-based evaluation of the product's key features, while younger customers would base their buying decision primarily on the information provided to them by the sales personnel.

It can be hypothesized that age and gender will have an impact on perceived service quality and customer loyalty. Perceived service quality in turn has an impact on customer loyalty. Perceived service quality is observed in terms of facilities, timeliness of service, and ambience of the hotel. Figure 1 summarizes the hypothesized model.

San Francisco is site

The survey was conducted among hotel customers in the San Francisco Bay Area. The majority of the respondents stayed at four-star hotels, while a few stayed at five-star and three-star hotels. A total of 139 usable questionnaires were obtained.

Of the 139 respondents, 40 percent were female; 31 percent were male, and the rest preferred not to state their gender. About 61 percent were between the ages of 26 to 45; 14 percent were under 25; 20 percent were older than 46, and 5 percent did not state their age. More than two thirds (70 percent) of respondents were employed. More than one fourth (26 percent) worked in hotels or restaurants, 13 percent in high-tech, 11 percent in education, 10 percent in healthcare, 12 percent in retailing, and 7 percent in government. Three fourths had completed bachelor's degrees or above, and 46 percent had degrees in business, science, or engineering.

The survey instrument was first developed using literature review and consultations with hotel industry experts. A pretest of the questionnaire
was then conducted among students in the Hospitality Management Department at San Francisco State University and the result was used to refine the instrument to improve its clarity and depth. Respondent's perceptions were measured using a Likert scale of six points.

Each of the observable variables was measured by several questions. The items for each variable were checked for construct validity and reliability using SPSS. Construct validity refers to whether all the items for the observable variable represent one single construct. Construct validity was established by checking the result of the factor analysis, with all the items representing one factor accounting for at least 61 percent of variance. Reliability refers to the degree of stability of the scale.21

Reliability of the construct is demonstrated by checking the Cronbach alpha for the items for each construct and the correlation among the items for the construct. Typically, a scale is said to be reliable if alpha is 0.70 or higher. The items all had high reliability coefficients, ranging from 0.92 to 0.96.

Model is adequate

The survey data were analyzed with LISREL confirmatory factor analysis, a tool designed for the analysis of covariance structure model.22 It captures the simultaneous interaction among the constructs and probes into the nature of the latent variables. The final model is given in Figure 2. Insignificant relationships are indicated by dotted arrows. In the final model, “Service quality” is made up of three significant indicators, “Timeliness,” “Facilities,” and “Ambience.” “Service quality” is significantly related to “Loyalty.” The effect of “Age” on “Service quality” is positive and significant, but its effect on “Loyalty” is insignificant. The effects of “Gender” on “Service quality” and “Loyalty” are insignificant. “Loyalty” is observed in terms of “Perceived loyalty” as evaluated by the customer. Age and gender are indicated by the “Age measure” and “Gender measure” reported by the customer.

The adequacy of the model in Figure 2 is assessed using various measures.23 In using structural equation models for testing, the null hypothesis is set up as a priori not to be rejected. The chi-square statistic tests whether the observed data fit the hypothesis of the proposed model, and a smaller chi-square value indicates a better fit. Hence, when the chi-square values are statistically insignificant, the hypothesized model would have a pattern close to the observed data. However, for small sample sizes that might have slightly departed from
normality, the chi-squares are not good model fit indicators. The chi-square per degree of freedom should be used instead. A ratio of approximately five shows a reasonable fit, while a ratio between one and two is an excellent fit. The ratio of the model in Figure 2 is 1.772 (chi-square = 10.63 with six degrees of freedom), indicating a very good fit.

Other measures of fit include the goodness-of-fit index (GFI) and normed fit index (NFI). Both the GFI and NFI are always between zero and one, with one indicating a perfect fit, and any value above 0.9 suggesting a good fit. The model has a GFI of 0.97 and a NFI of 0.96. This shows a good fit. The adjusted goodness-of-fit index (AGFI) is 0.91. This again shows a good fit. Similarly, the non-normed fit index (NNFI) and the comparative fit index (CFI) are two additional measures ranging from 0 to 1, where values close to or greater than 0.9 represent a reasonable model fit. The NNFI and CFI for the model are 0.98 and 0.95, respectively. Finally, the root mean squared residual (RMSR) shows the proportion of the variance not explained by the model. In general, a root mean squared residual of 0.08 or below indicates a reasonable model fit. The model has a RMSR of 0.075.

Overall speaking, the GFI, AGFI, NFI, NNFI, CFI, and RMSR all indicate that the model has a good fit. 

Ambiance enhances quality

Figure 2 summarizes the maximum likelihood parameter estimates and t-values for the model constructs. The model parameters ly1 are set to unity to define the unit of measurement for the latent variables “Service quality.” As indicated, ly2 (t = 7.35) is 1.83 and ly3 (t = 7.56) is 1.85; both are significant at the 0.05 level. This suggests that “Timeliness,” together with “Facilities” and “Ambience,” are observable measures of the latent variable “Service quality.” Since both ly2 and ly3 are positive, this shows that the better are the facilities and ambience as perceived by the customer, the more positive is the perceived service quality of the hotel. Since both ly2 and ly3 are greater than unity, this suggests that both “Ambience” and “Facilities” are more important indicators than “Timeliness” in measuring “Service quality.” In addition, the magnitude of ly2 and ly3 is almost equal, suggesting that “Ambience” and “Facilities” are about the same in importance in measuring “Service quality.”

In addition, b21 is 2.25 (t = 7.03) and is significant at the 0.05 level. This shows that higher perceived service quality would lead to higher customer loyalty, with one unit increase in the level of perceived “Service quality” leading to 2.25 units increase in “Loyalty” levels of

**Loyalty can be improved**

In this study LISREL was applied to analyze the underlying relationships between age, gender, "Service quality," and "Loyalty" of customers at hotels. LISREL is a powerful tool in analyzing the simultaneous relationships among latent variables. It analyzes the underlying dimension of a latent variable and gives an accurate picture of the true model. This investigation furthers the understanding of the relationship between the latent constructs of "Service quality" and "Loyalty" of customers toward hotels.

The result of this study suggests that "Loyalty" of hotel customers can be improved by enhancing "Service quality" of the hotel as perceived by the customers. "Service quality" is composed of several aspects including "Timeliness," "Facilities," and "Ambience." To develop better perceived service quality, hotels need to consider how to improve on these areas of service delivery. Timeliness of the service delivery is certainly an issue directly related to training. This would be especially critical for employees with direct customer contact (i.e., the boundary spanners), but it is also an important element in the training of the "back of the house" employee who must interact with the boundary spanner and ultimately the customers.

The importance of facilities and ambience to the perceived service quality would suggest that constant updating and maintenance of the hotel's facilities is paramount. This research provides support for including funds in the annual budget of a hotel for facilities improvements and other capital-related expenses designed to keep the service quality image and ambience of the hotel up to date. The psychological aspects of the hotel are the representation of intangible service quality provided and need to be addressed.

The effect of age of the customer on perceived service quality is positive and significant, indicating older customers may tend to rate service quality more positively. This suggests that hotels may need to consider the age of the customer when developing the service quality of the hotel. In particular, it would seem that the younger generation demands more from a hotel in order to rate its service quality more positively.

One limitation of this research is that only 71 percent of the
respondents indicated their gender. In future research the person administering the survey should report the gender of the respondents. The data then collected would allow a more accurate assessment of the effect of gender on perceived service quality and loyalty.

A second limitation of this research is that this study includes customers mostly from four-star hotels. Future research may consider collecting data from more of the three-star and five-star hotels and comparing customers among different types of hotels (e.g., five-star hotels versus three-star hotels). The factors that affect loyalty of customers may be different for different types of hotels.

In addition, it may be important to find out whether the respondent is a decision maker in the choice of a hotel. If customers are on business trips, the hotel decisions are made by companies. Analyzing the decision-making process involved in choosing hotels would enrich our understanding of the determinants of customer loyalty.

Figure 1: Hypothetical model for relationships among age, gender, service quality, and loyalty
Figure 2: Final model for relationships among age, gender, service quality, and loyalty

Goodness of Fit:

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>10.63</td>
</tr>
<tr>
<td>Degree of Freedom (df)</td>
<td>6</td>
</tr>
<tr>
<td>Chi-square / df</td>
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</tr>
<tr>
<td>Goodness of Fit (GFI)</td>
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<td>Adjusted Goodness of Fit (AGFI)</td>
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</tr>
<tr>
<td>Normed Fit Index (NFI)</td>
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</tr>
<tr>
<td>Comparative Fit Index (CFI)</td>
<td>0.98</td>
</tr>
</tbody>
</table>

* Significant relationships are denoted as solid arrows and insignificant relationship are denoted arrows.
References

15. Ibid.