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# The New Science of Service Innovation: Part 4 Select Research on People

Cornell Hospitality Research Summit

Cathy A. Enz, Editor

*Cornell University School of Hotel Administration, cae4@cornell.edu*

Rohit Verma, Editor

*Cornell University School of Hotel Administration, rv54@cornell.edu*

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# The New Science of Service Innovation: Part 4 Select Research on People

## **Abstract**

*Select Research on People from the 2014 Cornell Hospitality Research Summit*

Technology is essential, data has become indispensable, and organizations remain fundamental, but people—both employees and customers—have been and will continue to be the core element of the hospitality and service industries. The Cornell Hospitality Research Summit (CHRS) held in October 2014 was organized to examine service innovation in a new light, focusing on a scientific and disciplined approach to the topic. This is the final report in the series of four that feature expanded summaries of select research on service innovation based on CHRS presentations. This third report highlights innovative strategies related to people—both employees and customers—including the differences in how customers view tangible and intangible premiums connected to a service experience, the effect of culture on innovation, and the differential approach that women take to service businesses, as compared to other industries.

*This report highlights research presentation from the summit addressing service experiences and women entrepreneurs:*

- “Managing Service Experience with Experiential vs. Material Complimentary Premiums,” by HaeEun Helen Chun and Yue Woon Hiang (page 3)
- “Women Entrepreneurs in the Consumer Services Sector,” by Michele Williams (page 8)
- Implications of National Culture for Incremental and Radical Service Innovation, by Muge Yayla- Kullu, Jeffrey Durgee, Adelina Gnanlet, Christopher McDermott, and Praowpan Tansitpong (page 13)
- “The Use of Video and Storyboard Experiments to Test Service Innovations,” by Michael Dixon, Liana Victorino, Rob Kwortnik, and Rohit Verma (page 16)

## **Keywords**

Cornell Hospitality Research Summit, hospitality, consumer behavior, service innovation, entrepreneurs, women

## **Disciplines**

Hospitality Administration and Management | Tourism and Travel

## **Comments**

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# The New Science of Service Innovation Part 4

## *Select Research on **People** from the 2014 Cornell Hospitality Research Summit*

**T**echnology is essential, data has become indispensable, and organizations remain fundamental, but people—both employees and customers—have been and will continue to be the core element of the hospitality and service industries. The Cornell Hospitality Research Summit (CHRS) held in October 2014 was organized to examine service innovation in a new light, focusing on a scientific and disciplined approach to the topic. This is the final report in the series of four that feature expanded summaries of select research on service innovation based on CHRS presentations. This third report highlights innovative strategies related to people—both employees and customers—including the differences in how customers view tangible and intangible premiums connected to a service experience, the effect of culture on innovation, and the differential approach that women take to service businesses, as compared to other industries.

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### INTRODUCTION

**T**he core hospitality industry transaction involves people—both guests and service agents. In that transaction, the interrelationships of people are essential to service delivery, and their fit with systems, data, and technology are a major focus for managers and researchers alike. In this final summary of select research presented at the Cornell Hospitality Research Summit (CHRS14) we feature studies addressing the role of people in the new science of service innovation. The industry's people focus pushes forward on many fronts, including developing human capital, building guest and employee engagement, and redefining customer experience management.

#### **People Still Matter?**

Throughout the summit participants raised questions about the future of innovation and the importance of not losing the essence of service. As one attendee reminded us in her tweet, "Have we excessively 'datafied' hotelkeeping? Is it

time to contain the quants and return to a focus on judgment and service?" Containing the quants may not be necessary, but discovering the delicate balance between massive amounts of information and the synthesis of data to gain knowledge that people can act on may become increasingly important. The value of qualitative research was noted throughout the summit, and numerous participants advocated the importance of deploying these methodologies to complement big data and more fully understand innovation through and with people.

Before we move to the four papers summarized in this report, we are reminded that the power of service is ingrained in our beliefs and behaviors, and becomes a part of the collective service DNA. The appendix at the end of this report provides a summary of all the presentations at CHRS14 focused on people. In the pages to follow we provide summaries of three research presentations addressing service experiences and women entrepreneurs.

- “Managing Service Experience with Experiential vs. Material Complimentary Premiums,” by HaeEun Helen Chun and Yue Woon Hiang (page 3)
- “Women Entrepreneurs in the Consumer Services Sector,” by Michele Williams (page 8)
- Implications of National Culture for Incremental and Radical Service Innovation, by Muge Yayla-Kullu, Jeffrey Durgee, Adelina Gnanlet, Christopher McDermott, and Praowpan Tansitpong (page 13)
- “The Use of Video and Storyboard Experiments to Test Service Innovations,” by Michael Dixon, Liana Victorino, Rob Kwortnik, and Rohit Verma (page 16)

### Customers’ and Entrepreneurs’ Perceptions

Three consumer behavior studies are the foundation of the work by Helen Chun and Yue Woon Hiang, in their work, “Managing Service Experience with Experiential vs. Material Complimentary Premiums.” The authors report that consumers prefer experiential to material gifts (e.g., souvenirs) in ordinary consumption situations. The preference for experiential gifts should help managers in delivering truly memorable service, according to these experts. The situation reverses, however, during a special occasion, when the respondents preferred a tangible keepsake of their experience.

Michael Dixon, Rob Kwortnik, Rohit Verma, and Liana Victorino, explore how to test service innovations in their paper titled “The Use of Video and Storyboard Experiments to Test Service Innovations.” In their meta analysis of studies using video prompts, the authors offer deeper insight by understanding and deploying careful studies of human behavior within service settings.

Innovation is at issue in the analysis of the interaction of national culture with both incremental and radical service

innovations. The nature of power distance and relationships in a culture are strong influence on innovation.

Finally, women entrepreneurs are the subject of the research by Michele Williams. In her paper we learn that women entrepreneurs in service businesses have different opinions than men, and also differ from women in other industry sectors. Compared to men, women in services are more likely to believe that good opportunities exist than women in other industries, and further that they have the knowledge and the skills needed. Much work is still needed on this important topic, including determining what aspects of the service industry and its women entrepreneurs support these promising findings.

### Looking Ahead

As we close this series, we offer our thanks and appreciation first to all the presenters who made the CHRS14 such a remarkable and dynamic conference. To those who have subsequently contributed the papers summarized in this series of reports, which are based on their CHRS14 presentations, we add another round of appreciation.

Although we now conclude this series of reports, one step remains—that is to continue the dialogue. Although the studies presented in these four reports advance the knowledge of their particular topic, none of them is intended to be the last word. Instead, these studies and analyses are meant to provide a foundation for further research, as indicated by the many suggestions for additional study presented in these pages. Thus, we look forward to further research in the areas of data, organizations, people, and technology—research that provides additional answers—and additional questions—for the benefit of the hospitality and service industries.—*Cathy Enz and Rohit Verma, co-chairs*

Free Drink or Free Mug?

*Managing Service Experience with  
Experiential vs. Material Complimentary Premiums*

HaeEun Helen Chun and Yue Woon Hiang

**R**estaurants offer free drinks, hotels offer free breakfasts, and retailers offer free T-shirts. These are some examples of firms giving out complimentary items in the hope that they draw interest, build relationships with customers, and enhance the overall service experience. In fact, gifts offered by companies create irrational excitement,<sup>1</sup> are more effective than cash discounts as a promotion tool, and increase brand value perception.<sup>2</sup> Understanding the value of complimentary items, Priceline.com even allows consumers to search for specific “freebies” to narrow down the list of lodgings for their final pick.

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<sup>1</sup> Shampanier K, Mazar Z, Ariely D (2007) Zero as a special price: The true value of free products. *Marketing science* 26(6):742-757.

<sup>2</sup> Monroe, K. B. (1973) Buyers' subjective perceptions of price. *Journal of marketing research* 10(1):70-80.; Winer, R.S. (1988) Behavioral perspective on pricing: buyers' subjective perceptions of price revisited. *Issues in pricing: Theory and research* 35-57; Diamond WD, Sanyal A (1990) The effect of framing on the choice of supermarket coupons. *Advances in consumer research* 17(1):488-493; and Palmeira, MM, Srivastava, J (2013) Free offer ≠ cheap product: A selective accessibility account on the valuation of free offers. *Journal of consumer research* 40(4):644-656.

Despite the fact that consumers like freebies in general, a poorly selected gift can do more harm than good. The primary purchase and the gift equally affect the overall evaluation of the entire product bundle,<sup>3</sup> and a low quality gift diminishes the perceived value of high quality primary purchases.<sup>4</sup> So determining what gift to include as part of a promotional strategy is not a trivial managerial decision.

The promotional gifts considered in the studies described here are add-ons, rather than discounts. They come either in the form of experiences, such as spa sessions or meals, or physical items, such as bathrobes or mugs. One point to consider is whether people react to complimentary items in the same way as they do to purchased items, since experiential purchases generally give people greater, more long lasting happiness. Another possibility is that the gifts are a “bonus,” or “a benefit without any cost” as Shampanier *et al.* put it.<sup>5</sup> On that basis it’s hard to argue one way or the other for material versus experiential gifts.

### Consumption Occasions Matter: Special vs. Ordinary

Taking those views into account, the researchers propose that the preference for a type of gift depends on whether the occasion is a special event or a relatively commonplace activity. They argue that experiential gifts are more appreciated for ordinary experiences, since added experiences would make a commonplace event somewhat more special. For special occasions, on the other hand, a physical memento provides a reminder to allow people to reflect on what is already a happy experience.<sup>6</sup> This prediction is in line with recent research on strategic memory protection, which demonstrates that people consider their memories from past experiences as assets to be protected and try to obtain memory pointers that will help cue special recollections.<sup>7</sup> Based on this logic, the researchers propose the following hypotheses, which they tested with two studies, followed by a third, more specific analysis.

H1: On ordinary consumption occasions, consumers prefer (and are more satisfied with) experiential (vs. material) gifts, but the experiential advantage disappears on special occasions.

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<sup>3</sup> Anderson NH (1981) Foundations of information integration theory. (Academic Press, New York).

<sup>4</sup> Gaeth GJ, Levin IP, Chakraborty G, Levin AM (1991) Consumer evaluation of multi-product bundles: An information integration analysis. *Marketing letters* 2(1):47-57.

<sup>5</sup> Shampanier *et al op.cit.*

<sup>6</sup> That is, memory utility; e.g., Lowenstein G, Elster J (1992) Choice over time. (Russell Sage Foundation, New York); and Kahneman D (1994). New challenges to the rationality assumption. *Journal of Institutional and Theoretical Economics* 150(1):18-36.

<sup>7</sup> Zauberman G, Ratner RK, Kim BK (2009) Memories as assets: Strategic memory protection in choice over time. *Journal of consumer research*. 35(5):715-728

H2: Consumers’ preference for experiential gifts is driven by the desire to enrich the experience as it unfolds, whereas preference for material gifts is driven by the desire to acquire a memory marker.

### Study 1: Consumer Recall of Gifts

Study 1 asked 257 consumers to recall their experience with gifts. Using Amazon’s Mechanical Turk, the respondents were randomly assigned to recall a time when they received either a material gift or an experiential gift when they purchased a service. They were then asked to describe both their service experience and the gift, and then to indicate how satisfied they were with the service provider, whether the gift made them happier, how meaningful the gift was to them, and the extent to which the gift enriched the service experience. They also rated the extent to which the gift served as a reminder of their experience. All answers were on 9-point Likert-type scales anchored by not at all and very much.

Respondents then described the specific service occasion more in detail and indicated the specialness of the occasion using the same scale. Control variables asked them how long ago they had purchased the service and the perceived cost of the gift, as well as solicited demographic information. Their responses are shown in Exhibit 1, on the next page.

### Results

The independent variables for regression analysis were gift type (either material or experiential), specialness of the consumption occasion (as a continuous variable), and interaction of the two variables. The analysis found a main effect of gift type on the extent to which the gift made the respondents happy<sup>8</sup> and enriched the experience.<sup>9</sup> Regardless of whether the experience was special, those who recalled receiving an experiential gift reported that they were significantly happier with the gift and that the gift enriched their service experience. However, if the occasion was viewed as special there was a significant interaction between gift type and specialness of the occasion on the extent to which the gift served as a reminder of the experience.<sup>10</sup> When the occasion was perceived as special, the material gift was rated significantly higher on its memory marker function than on an ordinary occasion.<sup>11</sup>

An appropriate gift also influenced satisfaction with the service provider. On ordinary occasions, respondents were more satisfied with the service provider when they received an experiential gift,<sup>12</sup> but the difference in satisfaction between the two gift types disappeared as occasions became more special, in

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<sup>8</sup>  $p = .009$ .

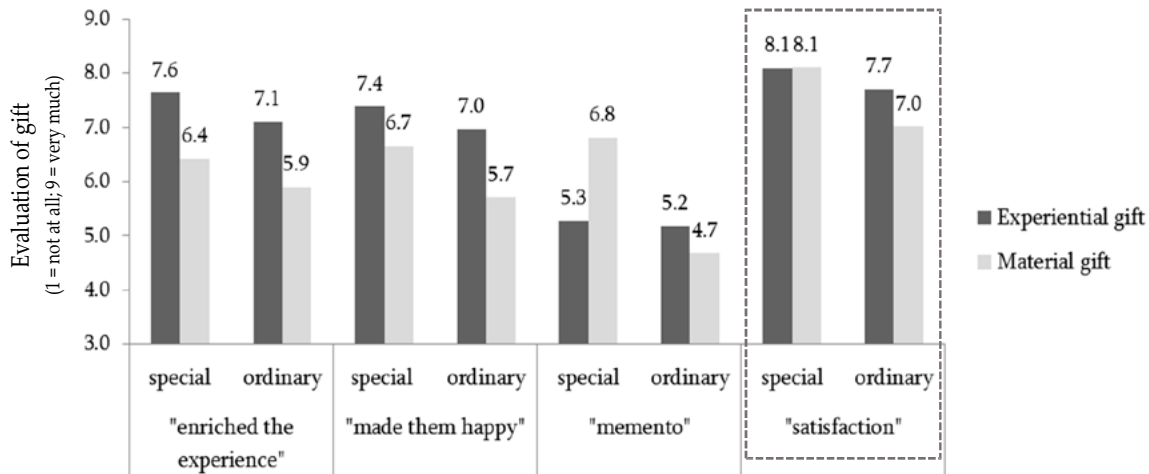
<sup>9</sup>  $p = .06$ .

<sup>10</sup>  $t = 2.82, p < .01$ .

<sup>11</sup>  $t = 3.03, p < .01$ .

<sup>12</sup>  $t = -2.41, p < .02$ .

## Evaluation of experiential versus material gift, using respondent recollection



support of H1.<sup>13</sup> Further analysis confirmed that the observed effects of gift type and specialness of consumption occasion on satisfaction is mediated by the beliefs that gifts serve as a memory marker.

### Discussion

The chief challenge of the findings in Study 1 is that the recollections are idiosyncratic. One could further argue that ease of recalling one type of gift over another might have affected evaluations about the gift.<sup>14</sup> Thus, Study 2 adopted a methodology intended to control for these potential biases by presenting participants with the identical choice task.

### Study 2: Consumer Choice between Experiential and Material Gifts

Two hundred sixty-five undergraduate and graduate students participated in Study 2 in exchange for course credit. The study utilized a 2x2 between-subjects design, using two occasion types (special vs. ordinary) and the choice between two types of gift (experience and material).

Participants who were presented with an ordinary occasion were told that they were booking a hotel for a leisure trip, one of the ordinary trips they usually take for vacations, while those in the special group were told they were celebrating a special event such as birthday, wedding, or anniversary. In both cases, participants were told that the hotel offered them one of two complimentary premiums, and they were to choose between a travel bag and a day tour in one case or between a wine set and a day tour in the other case (at values ranging from \$50-60; all

pretested to be equally liked). They then indicated their motivations for their choice. Again using a Likert-type scale, they were asked for the extent of their agreement to two propositions: "I would want the premium to be something that I can keep after the experience to serve as a memory keepsake," and "I would want the accompanying premium to be something that highlights or deepens the experience during the stay." Once again the study included control variables, such as number of leisure trips per year and tendency to collect a souvenir.

### Results

The results for the travel bag or the wine set choices were similar, so they could be combined. Three-quarters (74.8%) of consumers chose an experiential gift on ordinary consumption occasions, but this pattern was reversed for special occasions, when nearly two-thirds (64.9%) preferred a material gift for a special event.

Participants who were told that they were booking a special occasion were more likely to desire a souvenir, whereas those involving an ordinary occasion condition were more likely to want to enrich the experience. As with Study 1, further analysis found that the effect of experience type on the choice of a material versus an experiential gift was mediated by the desire for a souvenir.

With these results in mind, Study 3 looks more deeply into the role of a memory cue of a gift in terms of customer satisfaction.

### Study 3: Consumer Satisfaction with Experiential and Material Gifts

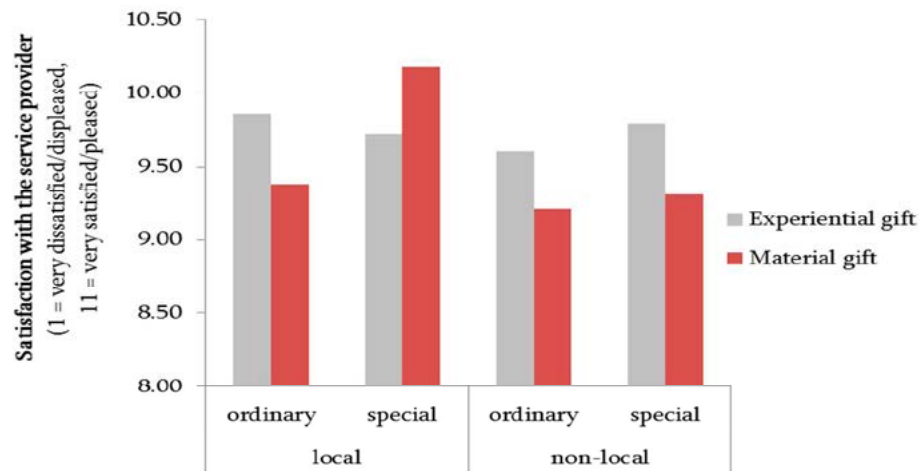
Study 3 focuses on the satisfaction resulting from an experiential or a material gift, once again comparing a special occasion to an ordinary event. The study also investigates the role of a gift as a memory marker. If consumers are choosing material gifts due to their desire for a souvenir, such a preference would no longer ex-

<sup>13</sup>  $t = .04, p = .97$ .

<sup>14</sup> For example: Wänke, Michaela, Gerd Bohner, and Andreas Jurkowitsch (1997). "There Are Many Reasons to Drive a BMW: Does Imagined Ease of Argument Generation Influence Attitudes?" *Journal of Consumer Research*, 24(2): 170-77



## Satisfaction with service provider, based on experiential or material gift, with or without a local connection



ist if the gift isn't really a prominent reminder of the experience, as formulated in H3.

H3: Preference for material complimentary gifts on special consumption occasions will hold only when the gift object serves as a salient memory marker.

### Method

To test the role of a gift in focusing memories, Study 3 manipulated whether the gift is representative of a distinct local identity (and therefore more memorable). This study divided 724 participants from Amazon's Mechanical Turk in a 2x2x2 between-subjects design, based on special vs. ordinary experience, experiential vs. material gift, and whether the gift was local or generic. The study also included a control in which no gift was offered at all.

The ordinary experience was a scenario describing the participant's tenth trip to China, whereas the special experience was the first trip to China. Each of the gifts was described as being valued at \$100. The material gift was a bathrobe, while the experiential gift was a spa experience. The generic description for the robe was "fleece bathrobe," while the localized gift was a "Chinese silk robe." Similarly, the generic spa gift was described just as "hotel spa," and the gift with the local identity was a "Chinese hot spring bath."

Once the participants read their randomly assigned scenario, they were asked to imagine themselves experiencing the situation described (using a character named Sam, who was the same gender as the respondent), and to indicate the extent to which they would be satisfied with the hotel, using an 11-point Likert-type scale anchored by not at all satisfied and very satisfied. Using the same scale anchored by strongly agree and strongly disagree, they also indicated the extent to which "Sam" would want a gift that serves as a memory marker and that would enrich the experience during the trip.

### Results

Once again, the respondents were more favorable to a material gift than an experiential gift on special occasions, but only when the material gift served as a salient memory marker. For an event that was not special, an experiential premium still dominated. When a gift takes on a local flavor as a souvenir, people were more satisfied with an experiential gift on ordinary occasions, as shown in Exhibit 2.

### Thoughtful Gift Choice

The three experiments found converging evidence that while experiential gifts are preferred for ordinary experiences, this experiential advantage fades for special experiences. Notably, in Study 2, more respondents chose material gifts than experiences on special occasions. However, although tangible material gifts are believed to serve as a reminder of the experience in retrospect, experiential gifts make people happier as the event unfolds. The value of a material gift is more pronounced when it serves as a salient memory marker and enhances the ability to recall the experience, especially when that gift represents an irreplaceable local identity.

Companies that offer complimentary items would benefit from knowing the nature of the occasion for their guests, so that the firms could effectively design service bundles that include appropriate gifts. Information from the customer relations management database may help to indicate when to offer an bonus experience and when to offer a souvenir. For example, hotels have comprehensive profiles of existing customers as part of loyalty programs (e.g., birthdays, anniversaries), so they should be able to note special occasions for regular guests, but also identify a first-time visitor for whom the hotel stay may represent a special occasion. Offering branded material gifts to those who are either first timers or those who came for special occasions could also be a great branding opportunity.



Picking up on the approach in Study 2, companies may want to offer a range of possible gifts (including both material and experiential items) and allow consumers to determine what improves their satisfaction. The dilemma for that approach is that consumers who are having a special experience want to enrich their experience as it unfolds, but at the same time they may look for a souvenir that will help reinforce a pleasant memory. Thus, it may be that both types of gift are in order. For instance, a restaurant may enrich the couple's anniversary dinner by offering free cocktails and then take a photo of the couple over dinner. By sending the couple the photo in a branded frame upon departure or mailing it to them later, the restaurant can transfer the enriched, yet fleeting experience into a tangible souvenir.

Hospitality firms should take note of the finding that experiential gifts make people happier in connection with most ordinary service encounters. Even on special occasions, guests are more satisfied with an experiential gift if the material gift doesn't really help enhance their memory of the experience. The challenge is to design meaningful experiential items that will truly transform the mundane nature of ordinary experiences into something de-

lightful and shape the entire experience more positively. At the same time, people are happy with truly memorable material gifts that connect them to the experience itself (consider a hotel offering a customized Formula 1 race car key chain during the F1 race weekend, a hotel in Thailand offering a tourist a statue of an elephant, or a luxury hotel offering a customized stationery engraved with customers' names).

This study didn't examine customer loyalty, but one study demonstrates that an experiential gift makes the recipient feel more socially connected to a gift giver.<sup>15</sup> The question of whether experiential gifts enhance guests' emotional connections to your firm is worth pursuing. Another question is whether the guest's age influences satisfaction in relation to experiential and material gifts.<sup>16</sup> ■

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<sup>15</sup> See: C. Chan and C. Mogilner Experiential gifts are more socially connecting than material gifts. Working paper, The Wharton School, University of Pennsylvania, Philadelphia, 2013.

<sup>16</sup> Bhattacharjee, Amit, and Cassie Mogilner (2014), "Happiness from Ordinary and Extraordinary Experiences," *Journal of Consumer Research*, 41 (June), 1-17.

## *Women Entrepreneurs in the Consumer Services Sector*

Michele Williams

**A**s women have increasingly become entrepreneurs over the last fifty years, a substantial proportion of these entrepreneurs have started consumer services businesses, while a somewhat lower percentage of women have entered extractive industries (e.g., mining, transportation, and farming), transformational industries (e.g., manufacturing, warehousing, transportation, and most wholesale trade), or business to business firms (e.g., financial intermediaries, consultants, and repair and outsourcing firms).<sup>17</sup> This growth in women's entrepreneurship has coincided with a growth in academic interest in psychological and behavioral differences between male and female entrepreneurs. Among the many research questions raised by the increase of women entrepreneurs is how their attitudes and perceptions differ from those of men. These studies that identify supposed gender-based differences have assumed that any differences are universal.<sup>18</sup>

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<sup>17</sup> Blau, F. D. 1998. "Trends in the Well-Being of American Women: 1970-1995." *Journal of Economic Literature*, 36, 112-65; Brush, C. G. 1992. "Research on Women Business Owners: Past Trends: A New Perspective and Future Directions." *Entrepreneurship, Theory and Practice*, 16(5-30); Brush, C. G. 2006. "Women Entrepreneurs: A Research Overview," M. Casson, B. Yeung, A. Basu and N. Wadeson, *The Oxford Handbook of Entrepreneurship*. Oxford: Oxford University Press, 611-28; and Jennings, J. E. and Brush, C. G. (2013). Research on women entrepreneurs: Challenges to (and from) the broader entrepreneurship literature? *Academy of Management Annals*, 7(1), 663-715.

<sup>18</sup> For example, see: Croson, R. and U. Gneezy. 2009. "Gender Differences in Preferences." *Journal of Economic Literature*, 47(2), 448-474.

This paper compares women's and men's perceptions on the following six propositions: **(1)** women's self-confidence in their entrepreneurial skills,<sup>19</sup> **(2)** their optimism regarding entrepreneurial opportunities,<sup>20</sup> **(3)** women's greater risk aversion,<sup>21</sup> **(4)** their lower aspirations for business growth and for financial accomplishment,<sup>22</sup> **(5)** their lower need for achieving social status through entrepreneurship,<sup>23</sup> and **(6)** a greater desire to avoid competition.<sup>24</sup> Rather than these propositions being universal across industrial sectors, the paper proposes that these gender-based perceptual and preference-based differences may in part result from contextual stereotypes that change as more women become involved in an industry. The study tests this notion by comparing how the attitudes of women in customer service might vary from those in the extractive or business-to-business sectors.

### Theoretical Basis and Hypotheses

The principle underlying this approach is social constructionism,<sup>25</sup> which suggests that knowledge is not the direct result of sensory data, but rather is shaped and filtered by the language and beliefs of particular communities. In this view, the expectations for and perceptions of women in one industrial sector might be different from those in another.<sup>26</sup> The context-

tual expectations might sway women's conduct<sup>27</sup> and influence their preferences in regard to their gender roles.<sup>28</sup> For example, gender expectations and images have been shown to differ across industries such as engineering, healthcare, and law.<sup>29</sup>

As the proportion of women in a particular business increases, the perception of their "legitimacy" in that business grows, particularly in regard to non-traditional roles.<sup>30</sup> This paper tests the notion that the legitimacy of women as entrepreneurs in consumer services may play a role in shaping women entrepreneurs' business-related preferences and perceptions. The study compares the perceptions of women in the service industries with those of women entrepreneurs in other sectors.

**Hypotheses.** Based on this social constructivist view, the study tests the hypotheses that perception and preference gender gaps for women entrepreneurs will be smaller relative to male entrepreneurs in the consumer services sector than in other sectors of the economy in terms of (H1) optimism regarding good business opportunities; (H2) the self-confidence of entrepreneurs in their knowledge, skill, and experience; (H3) fear of failure; (H4) the perception that entrepreneurs have a high level of status; (H5) aspirations to grow their business; and (H6) the preference of avoiding competition. Thus, the study compares the differences in women's and men's responses to the six questions for service businesses as against all others in the Global Entrepreneurship Monitor data.

### Data and Variable Definitions

Each hypothesis is tested with responses of nearly 67,000 respondents to a question from the Global Entrepreneurship Monitor (GEM) database, which contains data from at least 2,000 entrepreneurs in 86 nations between 2001 and 2010, for a total of 1.3 million observations. The filter for respondents is that they either have started a new business within the last three years or have serious plans to do so in the near future.

Almost half of the entrepreneurs are in consumer services businesses, which include personal services, retail, and hospital-ity operations, and just over half of these entrepreneurs are women. On the other hand, about one-third of the entrepre-

<sup>19</sup> Birley, S. (1989). "Female Entrepreneurs: Are They Really Any Different?" *Journal of Small Business Management*, 27(1), p. 32–37; and Chaganti, R. (1986). "Management in Women-Owned Enterprises," *Journal of Small Business Management* 24(4), 18–29.

<sup>20</sup> Fielden, S. L. and Davidson, M. J. (Eds.). (2010). *International Research Handbook on Successful Women Entrepreneurs*. Edward Elgar Publishing.

<sup>21</sup> Croson and Gneezy, *op.cit.*; Watson, J. and Robinson, S. (2003). Adjusting for risk in comparing the performances of male- and female-controlled SMEs. *Journal of Business Venturing*, 18, 773–788.

<sup>22</sup> Cliff, J. E., Langton, N., and Aldrich, H. E. (2005). Walking the talk? Gendered rhetoric vs. action in small firms. *Organization Studies*, 26(1), 63–91; Davis, A. and Shaver, K. (2012). Understanding gender variations in business growth intentions across the life course. *Entrepreneurship Theory and Practice*, 36, 495–512; Kelley, D., Brush, C., Greene, P. and Litovsky, Y. (2011). *The Global Entrepreneurship Monitor: 2010 Women's Report*. Wellesley, MA: Babson College and GERA; Powell, G. N. and K. A. Eddleston. 2008. "The Paradox of the Contented Female Business Owner." *Journal of Vocational Behavior*, 73, 24–36.

<sup>23</sup> Orhan, M. (2001). Women business owners in France: the issue of financing discrimination. *Journal of Small Business Management*, 39(1), 95–102.

<sup>24</sup> Gneezy, U.; M. Niederle and A. Rustichini. 2003. "Performance in Competitive Environments: Gender Differences." *Quarterly Journal of Economics*, 118, 1049–74. Heilman, M. E. 2012. Gender stereotypes and workplace bias. *Research in Organizational Behavior*, 32(0): 113–135; Niederle, M. and L. Vesterlund. 2007. "Do Women Shy Away from Competition? Do Men Compete Too Much?" *Quarterly Journal of Economics*, 122, 1067–101.

<sup>25</sup> Berger, P. L., and Luckmann, T. (1966). *Social construction of reality: A treatise in the sociology of knowledge*. Garden City, NY: Anchor Books.

<sup>26</sup> Duehr, E. E., and Bono, J. E. (2006). Men, women, and managers: Are stereotypes finally changing? *Personnel Psychology*, 59 (4), 815–846; and Cliff *et al. op.cit.*

<sup>27</sup> Ahl, H. 2006. "Why Research on Women Entrepreneurs Needs New Directions." *Entrepreneurship Theory and Practice*, 30, 595–621.

<sup>28</sup> Alvesson, M., and Billing, Y. (1997). *Understanding gender and organizations*. London: Sage; and Ely, R., and Padavic, I. (2007). A feminist analysis of organizational research on sex differences. *Academy of Management Review*, 32(4), 1121–1143.

<sup>29</sup> Fletcher, J. K. (1998). *Relational Practice A Feminist Reconstruction of Work*. *Journal of Management Inquiry*, 7(2), 163–186; Kellogg, K. C. (2011). *Challenging operations: Medical reform and resistance in surgery*. University of Chicago Press; Pierce, J.L. (1999). Emotional Labor among Paralegals. *Annals of the American Academy of Political and Social Science*, 561(1), 127–142.

<sup>30</sup> For example: Beaman L, Duffo E, Pande R, Topalova P. 2012. Female Leadership Raises Aspirations and Educational Attainment for Girls: A Policy Experiment in India. *Science*, 335: 582–586

### Percentage of women entrepreneurs according to industry type

	Extractive	Transformative	B2B Services	Consumer Services
Women entrepreneurs	1,364	5,225	4,321	15,938
Total entrepreneurs	3,898	17,245	13,562	31,735
Women's percentage	34.99%	30.30%	31.86%	50.22%

Note: Numbers are drawn from the Global Entrepreneurship Monitor database, covering 86 nations.

neers in the other three GEM sectors are women, including extractive businesses, transformative businesses, and B2B services. Those three sectors make up the other half of the entrepreneurial businesses in the study (see Exhibit 3).

#### Dependent Variables

The dependent variables and the six GEM survey questions that test them are as follows.

- (1) **Good opportunities:** (H1) is based on the question: “In the next six months, will there be good opportunities for starting a business in my country?”;
- (2) **Knowledge and skill:** (H2) is based on “Do you have the knowledge, skill, and experience required to start a new business?”;
- (3) **Fear of failure:** (H3) is based on “Would fear of failure prevent you from starting a business?”;
- (4) **High status:** (H4) is based on agreement with the statement, “In my country, those successful at starting a new business have a high level of status and respect”;
- (5) **Aspiring to grow:** (H5) is based on the question “How many people will be working for this business, not counting the owners but including all exclusive subcontractors, when it is five years old? By exclusive subcontractors, we mean people or firms working *only* for this business, and not working for others as well.” The growth hurdle is the addition of 10 persons and, for the case of established businesses, more than a 50-percent increase from the current employment level; and
- (6) **Avoid competition:** (H6) is based on the question “How many businesses offer the same products?” The possible answers are 1 = many, 2 = few, 3 = none. A higher score would indicate risk aversion, since the competitive field is relatively empty.

#### Independent Variables

The analysis compares the main independent variable, the interaction term “Female x Services,” with the overall independent

variable “Female,” which includes the women entrepreneurs in the entire sample. The other part of the interaction term, “Services,” divides the sample into service businesses and all others. The effects of the independent variable “Female” and the interaction term on the six dependent variables indicates whether women’s attitudes are different in service businesses, compared to the other business sectors. That is, the test is whether any gender gap for the questions measuring each of the six dependent variables is mitigated in the consumer services sector.

The analysis controls for the following: whether the entrepreneur “Exited Previous Business,” “Knows an Entrepreneur,” or is operating an “Opportunity Based Venture” or a “Necessity Based Venture.” The entrepreneurs’ ages are included for control, as is whether they are high school graduates or have attended at least some college. Finally, the analysis controls for country-level economic development using the World Economic Forum’s Global Competitiveness designations of the extent to which an economy is “innovation driven.”<sup>31</sup>

#### Results and Discussion

As explained next, Hypotheses 1, 2, 4, and 5 are supported, indicating that women entrepreneurs in service businesses have significantly different opinions than men regarding the presence of good opportunities, and their own knowledge and skills, high status, and aspirations of growth (see Exhibit 4, next page).

**H1:** Women entrepreneurs in other sectors are 3.43 percentage points less likely than men to believe that “Good Opportunities” exist. In consumer services this gap is reversed, with a positive differential of 3.7 percentage points for women in consumer services, relative to the other sectors.

**H2:** Whereas women entrepreneurs in other sectors are 5.83 percentage points less likely than men to believe in their “Knowledge and Skills,” in consumer services this gap is

<sup>31</sup> For example: Porter, M.E., J.J. Sachs and J. McArthur (2002). “Executive Summary: Competitiveness and Stages of Economic Development.” In *The Global Competitiveness Report 2001-2002*, edited by M.E. Porter, J.J. Sachs, P.K. Cornelius, J.W. McArthur and K. Schwab, 16-25. New York, NY: Oxford University Press; and Amoros, J.E. and N. Bosma. (2014). 2013 Global Report. Global Entrepreneurship Monitor. Wellesley, MA: Babson College.

## Results of hypothesis tests

	Good Opportunities	Knowledge and Skills	Fear of Failure	High Status	Aspire to Grow	Avoid Competitors
Female	-0.0343**	-0.0583**	0.0504**	-0.0077	-0.0663**	0.0284**
	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)
Consumer Services	-0.0053	-0.0173**	0.0166**	0.0015	-0.0340**	0.0346**
	(0.01)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)
Female x Services	<i>H1: 0.037**</i>	<i>H2: 0.025**</i>	<i>H3: -0.005</i>	<i>H4: 0.019*</i>	<i>H5: 0.011*</i>	<i>H6: -0.0128</i>
	(0.01)	(0.01)	(0.01)	(0.01)	(0.006)	(0.01)
<b>Control Variables</b>						
Exited Previous Business	0.0184**	0.0357**	0.0138*	-0.0060	0.0411**	0.0092
	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)
Knows an Entrepreneur	0.118**	0.0666**	-0.0213**	0.0127**	0.0433**	0.0126*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Opportunity Based Venture	0.0475**	0.0541**	-0.0083	0.0186+	0.0462**	0.0461**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Necessity Based Venture	-0.0465**	0.0024	0.0611**	0.0221*	-0.0018	-0.0511**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
High School Graduate	0.0043	0.0203**	-0.034**	0.0018	0.0357**	0.0088
	(0.01)	(0.00)	(0.00)	(0.01)	(0.00)	(0.01)
Some College Attendance	0.0054	0.0143**	-0.0070+	-0.0096*	0.0340**	0.0491**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)
Age	-0.0036**	0.0068**	0.0040**	-0.0042**	-0.0035**	-0.0054**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Age <sup>2</sup> /100	0.0032**	-0.0068**	-0.0049**	0.0047**	0.0036**	0.0082**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Efficiency Economy	-0.0678**	-0.0402**	0.0058	-0.0359**	0.0964**	0.0240**
	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)
Innovation Economy	-0.157**	-0.0257**	0.0087	-0.103**	0.0440**	0.0891**
	(0.01)	(0.00)	(0.01)	(0.01)	(0.00)	(0.01)
Constant	0.685**	0.657**	0.163**	0.825**	0.0953**	1.490**
	(0.02)	(0.01)	(0.02)	(0.02)	(0.01)	(0.03)
<b>N (total entrepreneurs)</b>						
	59,213	65,558	65,428	56,487	66,961	66,893
<b>R<sup>2</sup></b>						
	0.0358	0.0281	0.0134	0.00990	0.0420	0.0121

Note: Standard errors in parentheses; <sup>+</sup>p < 0.1, \* p < 0.05, \*\* p < 0.01

substantially reversed to a positive differential, relative to the other sectors, of 2.5 percentage points.

- H3:** Women entrepreneurs are more risk averse than men, but this is true for women in all industries, and those in services do not have a statistically different attitude.
- H4:** Unlike the other five questions, women entrepreneurs in other (non-service) sectors are not significantly less likely than men to perceive entrepreneurship to be associated with status. However, women in consumer services are 1.9-percent more likely than men to perceive entrepreneurship as a high-status career.
- H5:** Women entrepreneurs in other sectors have a relatively dismal view of their possibilities of growth, with a 6.6-percent lower likelihood compared to men. By contrast, women in consumer services have a significantly positive expectation of growth, 1.1-percent more likely than men.
- H6:** Consistent with previous experimental studies, women entrepreneurs in all businesses are more likely to avoid competitors than men.

## Conclusion

The findings generally support the social constructivist principle that business-related perceptions and preferences are not neces-

sarily universal, but are instead at least partly a function of the context. In this case, industrial sectors appear to play a role in shaping women entrepreneurs' perceptions and preferences. The study found significant variation in the views of women in the service industries as against those of women in other businesses (compared to men) regarding the perceptions that good opportunities exist, the perception that the entrepreneur has the knowledge and skills to operate a business, and the preference for growth of the business. In addition, participation in services supports the perception that entrepreneurship will be considered high status. On the other hand, the gender gaps in which women have greater fear of failure and avoidance of competition (compared to men) were similar for all industries.

In sum, if the context of the service industry truly casts a different light on women, as indicated by the attitudes reflected in this survey, it may be that this is a foundation for future research that seeks to address the popular practitioner notion that entrepreneurship is a "great equalizer" for women.<sup>32</sup> However, this study considered gender gaps in preferences and perceptions across different business sectors, and that does not necessarily signal the end of traditional assumptions about sex roles that disadvantage women. ■

<sup>32</sup> For example, see: Donlan V, Graves HF. 2007. *Her Turn: Why It's Time for Women to Lead in America*. Greenwood Publishing Group; and Pepper C, Webster C. (2012). *The Seven Pearls of Financial Wisdom: A Woman's Guide to Enjoying Wealth and Power*. Macmillan.

# *Implications of National Culture for Incremental and Radical Service Innovation*

Muge Yayla-Kullu, Jeffrey Durgee, Adelina Gnanlet,  
Christopher McDermott, Praowpan Tansitpong

**A**lthough corporate culture has long been seen as a contributor to a firm's service delivery, a company's national culture also has considerable effect on service attributes, including innovation. One anecdote that shows the impact of culture on service delivery involves differential loss rates of passengers abandoning two airlines. For United Airlines the loss rate per million departures between 1988 and 1998 was 0.3, but for Korean Air, it was 4.8. Metters *et al.* suggest that the primary reason for the high loss rate was that cabin and other staff would not contradict the captain at Korean Air, even when they believed the captain's actions were dangerous.<sup>33</sup> The uproar in early 2015 regarding a company employee's response to a flight attendant's service of macadamia nuts (in a bag, rather than on a plate) is another anecdote relating to the airline's culture.<sup>34</sup>

This paper examines the interplay of innovation and culture in service firms. In this framework, the cultures of the service provider's company, that of employees' country of origin, and that of consumers all play a role in successful innovation. This study applies the ten main characteristics of world cultures

adapted from Hofstede and the GLOBE project to examine how these characteristics affect perceptions of tangible elements of services, provider–consumer interaction, and service supply chain operations.<sup>35</sup> Knowing the effect of cultural characteristics can point to service improvements and innovations.

<sup>33</sup> Metters, R., Bendoly, E., Jiang, B., Young, S., & Zhao, X. 2010. "The Way that Can Be Told of Is Not an Unvarying Way": Cultural Impacts on Operations Management in Asia, *Journal of Operations Management* 28(3), p. 179.

<sup>34</sup> See, for example: Kyunghye Park, Korean Air Former Executive Sued in U.S. over Macadamia Nuts Row," *Bloomberg Business*, March 10, 2015 (<http://tinyurl.com/pgthy8u>).

<sup>35</sup> Hofstede, G. 1980. *Motivation, Leadership, and Organization: Do American Theories Apply Abroad?* *Organizational Dynamics* 9(1): 42-63; Hofstede, G. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations across Nations*, 2nd edition. Thousand Oaks, CA: Sage; Hofstede, G. 2014. *National Cultural Dimensions*, Geert Hofstede, <http://geert-hofstede.com/>; and House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W. and Gupta, W. 2004. *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Thousand Oaks, CA: Sage.



## Ten cultural characteristics

Power Distance	The degree to which the less powerful members of a society accept and expect that power is distributed unequally. People in societies exhibiting a large degree of power distance accept a hierarchical order in which everybody has a place and which needs no further justification.
Uncertainty Avoidance	The uncertainty avoidance characteristic expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity.
Individualism	The extent to which a culture prefers a loosely knit social framework in which individuals are expected to take care of themselves and their immediate families only.
Institutional Collectivism	The degree to which organizational and societal institutional practices encourage and reward collective distribution of resources and collective action
In-group Collectivism	The degree to which individuals express pride, loyalty, and cohesiveness in their organizations or families.
Masculinity	A preference in society for achievement, heroism, assertiveness and material reward for success. Society at large is more competitive.
Gender Egalitarianism	The degree to which an organization or society minimizes gender role differences while promoting gender equality.
Assertiveness	The degree to which individuals in organizations or societies are assertive, confrontational, and aggressive in social relationships.
Future Orientation	The degree to which individuals in organizations or societies engage in future-oriented behaviors such as planning, investing in the future, and delaying individual or collective gratification.
Performance Orientation	The degree to which an organization or society encourages and rewards group members for performance improvement and excellence.
Humane Orientation	The degree to which individuals in organizations or societies encourage and reward individuals for being fair, altruistic, friendly, generous, caring, and kind to others.

### Background on Cultural Characteristics and Services

In his seminal work, Hofstede identifies culture as a collective program that distinguishes members of one group from others. House *et al.* improved and extended Hofstede's original list of cultural attributes under a collaborative program named GLOBE (Global Leadership and Organizational Behavior Effectiveness).<sup>36</sup> Exhibit 5 lists the underlying definitions of the ten cultural characteristics as presented by Hofstede and the GLOBE researchers.

This study investigates how cultural characteristics affect perceptions of services in terms of tangibles, provider–consumer interactions, and supply chain operations. The test of this relationship involves reviewing other studies and analyzing data gathered from 134 airlines in 77 countries. That study employed

<sup>36</sup> House *et al.*, *op.cit.*

a total of 18 regression analyses on the effect of national culture on ratings of such factors as the airlines' seat comfort, service efficiency, staff attitude, and check-in and transfer services. A chief finding was that one or more cultural characteristics affected at least one service quality dimension.

Based on the ten cultural characteristics shown in Exhibit 5, the study finds that airlines that are high in terms of power distance received low evaluations for their supply chain operations, which include check-in, transfer, and arrival services. Additionally, evaluators appeared to feel that tangible components and supply chain elements of airlines from cultures with a high avoidance of uncertainty were not up to industry standards. In that instance, it makes sense that employees might be reluctant to face uncertainty by incurring risks of innovation. As for supply chain issues, it is not surprising that evaluators might perceive transfers and arrival services as being inflexible and rule bound. Oddly, for reasons that are not clear, the evalua-

tors gave low evaluations for airline supply chain services when the airlines represented cultures that value gender equality. Airlines from high assertiveness cultures received low scores for structural or tangible elements. It is possible that these cultures value dominance and aggression to the detriment of concern for good quality tangible offerings. Airlines from high humane orientation cultures also received low evaluations for their tangible offerings. This might be because of an excessive focus on intangibles, with more emphasis on people issues and less on tangibles.

### Implications for Service Innovations

Based on the study data, culture also seems to have divergent effects on incremental innovation, as opposed to breakthrough innovations. More than one study has pointed out that radical innovations happen when business leaders and designers have deep sensitivities for their customers and their desired meanings and cultural values.<sup>37</sup> Rather than rely on market data, radical innovators focus on careful analysis of deeply held values and meanings. Apple Computer has famously innovated in this way, and Starbucks successfully detected that they could capitalize on a shift toward cosmopolitan values among young people.

### Incremental Service Innovations

At least in the airline industry, it appears that there are opportunities for incremental innovations for different services based on the airlines' corporate and national cultures. Gap analysis shows that companies with high power distance cultures might benefit from improved supply chain operations.<sup>38</sup> For example, it might be helpful to train ground service personnel to be more deferential to passengers.

Similarly, there might be significant opportunities for airlines that score high in terms of uncertainty avoidance to improve not only supply chain operations but also structural or tangible components. Evaluators felt that these airlines were behind the times in terms of things like seat comfort, meals, and ground services. Where airlines are perceived to be too assertive, there are opportunities for increased focus on tangibles. Such an increased focus might also be the basis for incremental improvements for companies from cultures with high focus on people over tangibles.

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<sup>37</sup> Verganti, R. 2009. *Design Driven Innovation*: Boston: Harvard Business Press; and Holt, D. and D. Cameron 2010 *Cultural Strategy*. Oxford: Oxford University Press.

<sup>38</sup> Brightman, H. 1988. *Group Problem Solving: An Improved Managerial Approach*. USA: Georgia State Publishing; and Newell, A. and H. Simon 1972. *Human Problem Solving*. Englewood Cliffs, NJ: Prentice-Hall.

### Radical Service Innovations

Radical service innovations redefine categories, as they influence customer behavior and competitors' actions.<sup>39</sup> These innovations often come about because of new technologies that enable service delivery that greatly exceeds the expectations that are based on one's home culture. An acute awareness of that culture may be a mechanism that can lead to the development of radical service innovations. As one example, it may not be accidental that it was in 19th-century England that a two-class system was formally adopted for the railroad industry, given a national culture that had strong power-distance overtones at the time. Although the American push for equal treatment of the sexes took many decades, the Bethlehem Female Seminary (today, Moravian College) was the first college for women in the U.S., albeit founded as a boarding school by European interests in 1742. This early effort capitalized on sentiments about equal opportunities for the sexes that could be expressed in the American culture.

In 1986, the Body Shop, founded in 1976 by Anita Roddick (based on a 1970 concept created by two women in California), started its radical innovation as an early retailer to espouse a wide range of social causes (including criticism of the cosmetics industry), a lead since followed by firms on different sides of many issues. Another innovator of social causes was Rockresorts, founded in 1956. Based on cultural values of its founder, Laurance Rockefeller, the company anticipated the American push for environmental protection by more than a decade.<sup>40</sup>

Cultural values do change over time, and brands should keep up to date by tracking changes in cultural values.<sup>41</sup> One could argue that the early success of jetliners in the 1950s was supported in part by the importance then placed on performance orientation and power distance in the U.S. and Great Britain. The subsequent development of the briefly successful PeopleExpress airline and more recent successful operation of Southwest Airlines demonstrates a U.S. cultural shift to stress low power distance and high individuality—supporting the ideas that everyone has rights and access to all life opportunities. Although Hofstede and House *et al.* describe the implications of dominant cultural characteristics,<sup>42</sup> cultures and ideologies go through minor changes all the time, and represent new opportunities for service innovation, both incremental and radical. ■

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<sup>39</sup> Berry, L. and V. Shankar, J. Parish, S. Cadwalader, T. Dotzel 2006 *Creating New Markets Through Service Innovation* MIT Sloan Management Review. January.

<sup>40</sup> <http://rockresorts.com/environmental-program/>

<sup>41</sup> Holt and Cameron, *op.cit.*

<sup>42</sup> Hofstede (2014), *op.cit.*; and House *et al.*, *op.cit.*

# *The Use of Video and Storyboard Experiments to Test Service Innovations*

Michael Dixon, Liana Victorino, Rob Kwortnik, Rohit Verma

A substantial number of studies have used respondents' reactions to videos as the way to gather data regarding the potential effects of service innovations. This report summarizes those studies and suggests storyboards as an alternative to videos for this purpose. Researchers and managers can examine the behavioral implications of service design using videos and storyboards, allowing academics and practitioners to gain a better understand of how and why customers perceive, respond to, and are affected by a firm's service procedures. By basing service design strategies on behavioral principles, firms can find ways to innovate and improve the customer experience.<sup>43</sup>

Rather than implementing a service innovation in real time and seeing how it goes, videos are a way to test service innovations before going live and avoiding the risk of offending guests.<sup>44</sup> Other approaches to testing service innovation include simulation,<sup>45</sup> analytical and computation modeling,<sup>46</sup> conceptual modeling,<sup>47</sup> and two types of process mapping: service

blueprints<sup>48</sup> and process-chain-network analysis.<sup>49</sup> At least one service blueprinting study has used video and photographs to enhance the display of the service process.<sup>50</sup>

Video and storyboard experiments visually depict the sequence of events that occur within a service experience or encounter. A researcher can develop a storyboard to depict a service design that includes a series of written vignettes with associated images or drawings, similar to a comic strip.<sup>51</sup> Similarly,

<sup>43</sup> Chase RB, Dasu S (2001) Want to perfect your company's service? Use behavioral science. *Harvard Business Review* 79(6): 78-84.

<sup>44</sup> Verma R, Anderson C, Dixon M, Enz, C, Thompson G, Victorino L (2008) Key elements in service innovation: insights for the hospitality industry. *Cornell Hospitality Roundtable Proceedings* 1: 4-12.

<sup>45</sup> For example: Makino Y, Furuta K, Kanno T, Yoshihara S, Mase T (2009) Interactive method for service design using computer simulation. *Service Science* 1(2): 121-134.

<sup>46</sup> For example: Larson RC, Gomez Diaz M (2012) Nonfixed retirement age for university professors: Modeling its effects on new faculty hires. *Service Science* 4(1): 69-78.

<sup>47</sup> For example: Stanicek Z, Winkler M (2010) Service systems through the prism of conceptual modeling. *Service Science* 2(1-2): 112-125.

<sup>48</sup> Bitner MJ, Ostrom AL, Morgan FN (2008) Service blueprinting: a practical technique for service innovation. *California Management Review* 50(3): 66-94; Shostack GL (1987) Service positioning through structural change. *The Journal of Marketing* 51(1): 34- 43.

<sup>49</sup> Sampson SE (2012) Visualizing service operations. *Journal of Service Research* 15(2): 182-198.

<sup>50</sup> Bitner *et al.*, *op.cit.*

<sup>51</sup> For example, see: Aslanzadeh M, Keating BW (2014) Inter-channel effects in multichannel travel services moderating role of social presence and need for human interaction. *Cornell Hospitality Quarterly* 55(3): 265-276.

a designer can produce a video depicting a hypothetical service scene.<sup>52</sup>

Compared to observational studies, a chief advantage of these methods is that researchers have greater control of the variables such as sequence and duration when testing service innovations.<sup>53</sup> Visual-based experiments also capture the dynamic and intangible nature of services in a compelling way that offers more realism than written scenarios.<sup>54</sup> The great downside of videos is the expense associated with the filming process. Coordinating schedules of actors and the film crew, along with location availability can be difficult, so it is recommended to avoid having to film scenarios multiple times. Moreover, as described below, pilot testing is essential.

### Research Objective and Method

Using Google Scholar's advance search feature, the researchers found a total of 37 articles published between 2000 and 2014 in five prominent journals that used videos to test behavioral science applications for service innovation. None of the studies used storyboards. The journals are: *Organizational Behavior and Human Decision Processes*, *Journal of Consumer Research*, *Journal of Operations Management*, *Journal of Service Research*, and *Journal of Service Management*.<sup>55</sup> In the selected articles the authors designed the videos rather than use clips from existing sources.

### Methodological Review

The review found that video in experiments has been more widely used in studies of organizational behavior, based on 21 articles found in the journal of *Organizational Behavior and Human Decision Processes* (OBHDP). Some of these studies are related to the study of emotions and emotional displays such as authenticity and emotional labor<sup>56</sup> or emotional displays in negotiations.<sup>57</sup> Additionally, one focus of the use of video appears to be its ability to capture human interactions to better understand how decisions are made and how judgments are formed.

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<sup>52</sup> For example, see: Victorino L, Verma R, Wardell DG (2013) Script usage in standardized and customized service encounters: implications for perceived service quality. *Production and Operations Management*, 22(3): 518-534.

<sup>53</sup> Seawright, KK, Sampson SE (2007) A video method for empirically studying wait-perception bias. *Journal of Operations Management* 25(5): 1055-1066.

<sup>54</sup> *Ibid.*

<sup>55</sup> The authors also examined *Service Science*, but found no video or storyboard experiments.

<sup>56</sup> For example: Grandey AA, Fisk GM, Mattila AS, Jansen KJ, Sideman LA (2005) Is "service with a smile" enough? Authenticity of positive displays during service encounters. *Organizational Behavior and Human Decision Processes* 96(1): 38-55.

<sup>57</sup> For example: Kopelman S, Rosette AS, Thompson L (2006) The three faces of Eve: Strategic displays of positive, negative, and neutral emotions in negotiations. *Organizational Behavior and Human Decision Processes* 99(1): 81-101.

Topics studied through visual-based methods included negotiation,<sup>58</sup> trust,<sup>59</sup> leadership,<sup>60</sup> and team dynamics.<sup>61</sup>

The three papers in the *Journal of Consumer Research* (JCR) examined product placement techniques,<sup>62</sup> the impact of envy on consumer behavior,<sup>63</sup> and how other peoples' consumption behavior affects product consumption.<sup>64</sup> One impressive study simulated a television comedy to test the effects of various product placement techniques.<sup>65</sup> This study was of particular interest due to its impressive pilot work, which included a live stage reading of the TV show to support the experimental design.

The single paper using video in the *Journal of Operations Management* (JOM) was quite involved.<sup>66</sup> The researchers hired actors, filmed at a local bakery, and developed video scenarios to test psychology-of-waiting principles. That paper provided a comparison of different issues related to the use of various empirical methodologies (i.e., observational studies, written scenario experiments, and video scenario experiments).

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<sup>58</sup> For example: Bowles HR, Babcock L, Lai L (2007) Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask. *Organizational Behavior and Human Decision Processes* 103(1): 84-103; Amanatullah ET, Tinsley CH. (2013) Punishing female negotiators for asserting too much... or not enough: Exploring why advocacy moderates backlash against assertive female negotiators. *Organizational Behavior and Human Decision Processes* 120(1): 110-122.

<sup>59</sup> For example, Dirks KT, Kim PH, Ferrin DL, Cooper CD (2011) Understanding the effects of substantive responses on trust following a transgression. *Organizational Behavior and Human Decision Processes* 114(2): 87-103., Kim PH, Dirks KT, Cooper CD, Ferrin DL (2006) When more blame is better than less: The implications of internal vs. external attributions for the repair of trust after a competence-vs. integrity- based trust violation. *Organizational Behavior and Human Decision Processes* 99(1): 49-65.

<sup>60</sup> For example, Grant AM, Hofmann DA (2011) Outsourcing inspiration: The performance effects of ideological messages from leaders and beneficiaries. *Organizational Behavior and Human Decision Processes* 116(2): 173-187.; Venus M, Stam D, van Knippenberg D (2013) Leader emotion as a catalyst of effective leader communication of visions, value-laden messages, and goals. *Organizational Behavior and Human Decision Processes* 122(1): 53-68.

<sup>61</sup> For example, Gino F, Argote L, Miron-Spektor E, Todorova G (2010) First, get your feet wet: The effects of learning from direct and indirect experience on team creativity. *Organizational Behavior and Human Decision Processes* 111(2): 102-115., Roch SG (2007) Why convene rater teams: An investigation of the benefits of anticipated discussion, consensus, and rater motivation. *Organizational Behavior and Human Decision Processes* 104(1): 14- 29.

<sup>62</sup> For example, Russell CA (2002) Investigating the effectiveness of product placements in television shows: The role of modality and plot connection congruence on brand memory and attitude. *Journal of Consumer Research* 29(3): 306-318.

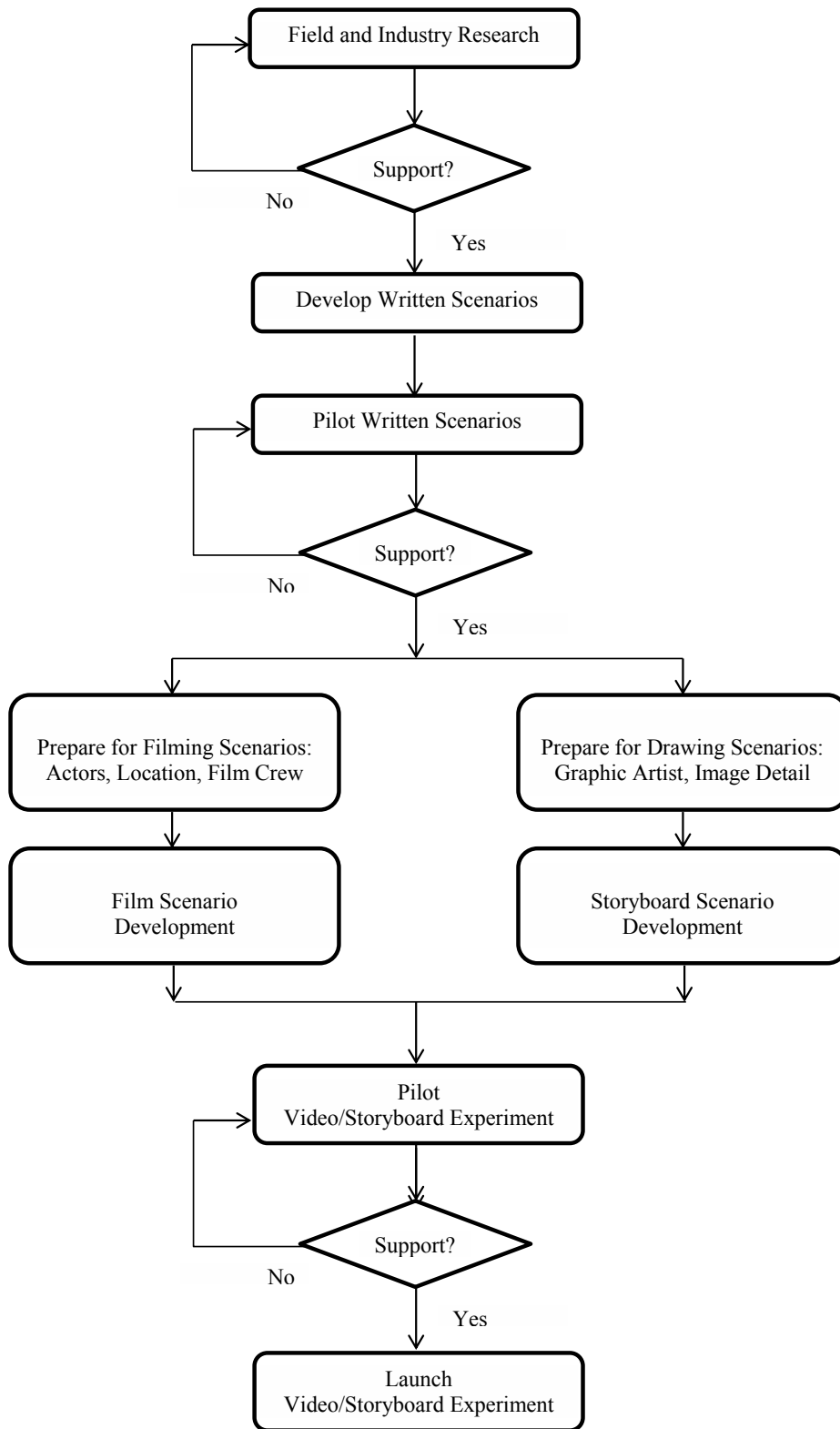
<sup>63</sup> Van de Ven N, Zeelenberg M, Pieters R (2011) The envy premium in product evaluation. *Journal of Consumer Research* 37(6): 984-998.

<sup>64</sup> For example, Tanner RJ, Ferraro R, Chartrand TL, Bettman JR, Van Baaren R (2008) Of chameleons and consumption: The impact of mimicry on choice and preferences. *Journal of Consumer Research* 34(6): 754-766.

<sup>65</sup> Russell, *op.cit.*

<sup>66</sup> Seawright and Sampson, *op.cit.*

Video and storyboard experiment development flowchart



The *Journal of Service Research* (JSR) had eight video experiment papers, several of which examined emotion and the display of emotions related to service failure and service recovery, such as affective tone, emotional labor, emotional contagion, and facial displays.<sup>67</sup> Two papers assessed how the gender of service providers influence perceptions,<sup>68</sup> and others examined the interaction between front-line employees and customers.<sup>69</sup>

Finally, the four papers in the *Journal of Service Management* addressed the following research questions: understanding the influence of service levels on customer satisfaction;<sup>70</sup> the psychology of service, such as consumer psychology;<sup>71</sup> and environmental psychology.<sup>72</sup>

### Behavioral Science Applied to Service Innovation

In sum, the authors concluded that these visual-based experiments allow for a dynamic simulation of the intricacies of human interaction, particularly in connection with the emotional aspects of an experience. Moreover, visual forms of experiments can test customer perceptions with relative ease and with more realism in design than written scenarios.

### Development Process of Visual-Based Experiments

The authors found that visual-based experiments required careful preparation, including creating written scenarios and conducting extensive pilot work to verify that the videos would depict the experimental manipulations (see Exhibit 6, on the next page). Just over half of the reviewed articles conducted pilot tests. As in all studies, the authors stress the importance of a sufficient sample size per experimental condition for statistical power purposes, particularly when examining smaller effects.<sup>73</sup>

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<sup>67</sup> For example, Dallimore KS, Sparks BA, Butcher KB (2007) The influence of angry customer outbursts on service providers' facial displays and affective states. *Journal of Service Research* 10(1): 78-92., Du et al. 2014, Mattila et al. 2003, Luong 2005)

<sup>68</sup> For example, Mattila AS, Grandey AA, Fisk GM (2003) The interplay of gender and affective tone in service encounter satisfaction. *Journal of Service Research* 6(2): 136-143., Mc-Coll Kennedy JR, Daus CS, Sparks BA (2003) The role of gender in reactions to service failure and recovery. *Journal of Service Research* 6(1): 66-82.

<sup>69</sup> For example, Dallimore *et al.*, *op.cit.*, Victorino *et al.*, *op.cit.*

<sup>70</sup> For example, Mattila AS, Wirtz J (2006) Arousal expectations and service evaluations. *International Journal of Service Industry Management* 17(3): 229-244; Specht N, Fichtel S, Meyer A (2007) Perception and attribution of employees' effort and abilities. *International Journal of Service Industry Management* 18(5): 534-554; and Wirtz J (2003) Halo in customer satisfaction measures: The role of purpose of rating, number of attributes and customer involvement. *International Journal of Service Industry Management* 14(1): 96- 119

<sup>71</sup> For example, Mattila and Wirtz, *op.cit.*

<sup>72</sup> For example, Wirtz J, Mattila AS, Tan RLP (2007) The role of arousal congruency in influencing consumers' satisfaction evaluations and in-store behaviors. *International Journal of Service Industry Management* 18(1): 6-24.

<sup>73</sup> Verma R, Goodale JC (1995) Statistical power in operations management research. *Journal of Operations Management* 13(2): 139-152.

For convenience, most researchers used a student-based sample. However, it may be that future studies can collect data from a broader sample, given the availability of services such as Amazon Mechanical Turk. MTurk has been used within academic studies and has proved to be a reliable way to recruit participants.<sup>74</sup> Two other ways to improve statistical power is to use multiple tests in the study (which occurred in more than two-thirds of the reviewed articles) and to use multiple methods (e.g., interviews or observational study, survey, or experiment) in addition to the video simulation.

### Illustrative Example: Storyboard Experiment

Although storyboards were not used in the studies they reviewed, the authors suggest that storyboards offer specific advantages over video, including control of costs and visual appearance.<sup>75</sup> For example, a forthcoming study uses storyboards to create an impartial setting for scenarios relating to a tour operator and an unbiased schema for the location itself. Working with a graphic artist the team developed three images that would depict scenarios being tested. The study was able to use a national sample using Amazon's MTurk.

The researchers see storyboard experiments as being especially useful when investigating sequence effects because it is fairly simple to manipulate the order of events. Additionally, storyboards can be made to represent a hypothetical service that is generic and free from external biases that participants might have about a certain service, brand, or location. In contrast to storyboards, video experiments are better suited to examine the intricacies of human interaction and the display of emotions.

### Conclusions and Implications

In conclusion, visual-based methods (in this case, storyboards and video) are excellent tools for depicting the service experience and obtaining measurement of customer perceptions to test behavioral-based innovations. This study found that visual-based experiments allow benefits of high internal validity while also affording a simulated representation of the service experience and addressing many of the challenges associated with testing service innovations. Similar to the way film and theater directors storyboard what will happen from beginning to end prior to the actual performance or filming,<sup>76</sup> the visual-based methods of video and storyboard can be used as complements to one another to lessen the risk and add to the design's rigor. ■

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<sup>74</sup> For example, Buhrmester M, Kwang T, Gosling SD (2011) amazon's mechanical turk a new source of inexpensive, yet high-quality, data. *Perspectives on Psychological Science* 6(1): 3-5; Paolacci G, Chandler J, Ipeirotis P (2010) Running experiments on amazon mechanical turk. *Judgment and Decision Making* 5(5): 411-419.

<sup>75</sup> See: Dixon MJ, Victorino L, Kwornik R, Verma R (2015) Surprise, anticipation, and sequence effects in service and experience design. Working paper, Naval Postgraduate School.

<sup>76</sup> Harris R, Harris K, Baron S (2003) Theatrical service experiences: dramatic script development with employees. *International Journal of Service Industry Management* 14(2): 184-199.



## CHRS People Presentation Summaries

### Designing Great Customer Experiences by Listening to the Brains, Hearts, and Minds of the People You Serve

Laurence Bernstein '73, Managing Partner, Protean Strategies Inc., and Protean Hospitality Partners

The future of service innovation will depend on deeper understandings of the people that compose the marketplace (both customers and associates), why they behave the way they do, and why they hold the beliefs and attitudes that drive their behavior. This presentation will focus on new ways to understand people, and how this applies to the hospitality industry.

### Managing Service Experience with a Right Match of Complimentary Gifts

HaeEun (Helen) Chun, Assistant Professor, Cornell University, School of Hotel Administration; Co-author and presenter: Yue Woon Hiang '11

Companies offer complimentary gifts to consumers in the hope that they draw interest, build relationships with consumers, and enhance the overall service experience. This research investigates consumers' underlying motivations behind their preference for experiential versus material or tangible complimentary gifts. Matching the right types of complimentary gifts enhances service experience and increases satisfaction. In order to offer the right complimentary gift match, companies should look into consumption occasions (e.g., special occasions such as celebrating anniversary) or types of consumers (e.g., repeat customers). Experiential gifts increase experience utility (increasing consumer happiness and enriching service experience), whereas material gifts increase memory utility (serving as a tangible reminder of the experience). Material gifts with a salient local identity are most appreciated by consumers who have heightened needs for memory utility.

### Is Customer Experience Replacing Marketing?

Matt Cohen, Vice President, Global Strategic Accounts, Market Metrix and Clarabridge; Co-author and presenter: Jonathan Barsky, Jon Black

With the emergence of social media, guests are powerful influencers. Indiscriminately sharing their experiences with the world, they provide hoteliers with a treasure trove of feedback at their disposal. These sources of feedback, plus the feedback guests provide through other channels, supply key insights into what makes a guest a promoter or a detractor. The key is to unlock and harness this information. Doing so gives hotels the power to shape their guests' experiences. Guests can plan their own experiences with laser precision, and tapping into, understanding, and using experience data gives hoteliers the ability to shape guest experiences.

### First Comes Love, Then Comes Marriage: How the Right Attraction Leads to Engagement and the Road to Happily Ever After

Ana Brant, Director, Global Guest Experience & Innovation, Dorchester Collection; Co-author and presenter: Eugenio Pirri

The art of connecting the hearts and minds of our people is the foundation of Dorchester Collection's bespoke ethos. This is achieved by cultivating an authentic, collaborative, and inquisitive organizational culture that is aligned with the company's brand promise, "Iconic Hotels in Iconic Places." Attract with mind, engage with heart, then let the mind think and the heart speak.

### How Talent Science Can Aid the Science of Hospitality

Jason Taylor, Group Vice President, Dev & Chief HCM Scientist, Development, Infor PeopleAnswers Talent Science

Hospitality companies, often deluged with hundreds of applications for each position, can be more effective and efficient in their hiring practice, using Talent Science™ methodology. This approach can help that ensure hospitality companies hire the right people for the right positions, reducing turnover and increasing profitability.

### Managing People and Quality—Is it Time to Contain the Quants?

David Richey, Managing Director, Richey International

There is a heavy hand upon the shoulder of young managers today. This weight stifles imagination, motivation, and longevity. It's caused by detrimental reliance on standardized, quantified analytics to determine excellence. Fortunately, there's another path—we can return to our hotelier roots—authenticity, passion, and enlightenment. It's time to contain the quants. Heavily benchmarked quality systems no longer work because of changes in employee and customer demographics, and other modern trends. Today's developing managers really can have the passion and dedication—they are simply animated differently and need tools that are not based on winning and losing.



## CHRS People Presentation Summaries (continued)

### Woman-Owned Small Businesses in the Retail, Service, and Hospitality Sectors

Michele Williams, Assistant Professor, Department of Organizational Behavior, Cornell University, ILR School; Co-author and presenter: Arturs Kalnins

Female-owned businesses do not universally underperform male-owned businesses, as previously thought. Using data from one million proprietorships, we estimated gender effects for individual industries and geographic areas. We found that female-owned businesses out-survived male-owned businesses in many industries, including restaurants serving alcohol, and in many areas, specifically in large cities. In hospitality and service organizations, women's leadership and entrepreneurial success can be influenced by industrial and geographic norms and opportunities. To make the best use of the human capital of their entire workforce, industry leaders and policy makers need to better understand the beneficial and detrimental aspects of how gender roles and opportunities are socially constructed in their industry and region.

### Industry Values and Profits: At Odds?

Michele Sarkisian, Chief Executive Officer and President, P3 Advisors

We've all seen the growing importance of consumer and employee attraction to companies where values and corporate social responsibility (CSR) efforts align to their own. Humanitarian efforts make a difference in hospitality choices, particularly as awareness of the exploitation of children around the globe has heightened. Doing good helps companies who take action and can hurt those who don't. Industry CSR is moving into humanitarian issues and travelers are paying attention. Reputable brands are making an enormous difference for children here and around the world by paying attention to human trafficking issues and training front lines for action

### Unleashing the Entrepreneurial Potential within a Leading Established Tourist Group

Juan Roure, Professor of Entrepreneurship, University of Navarra, IESE Business School; Co-author and presenter: Joan Vila

This presentation and dialogue session reviewed the results and insights of an entrepreneurship case study based on the intrapreneurial success story of TUI Travel A&D, a division of TUI Travel PLC. The session included participation of the leading intrapreneur. Participants worked on an understanding of the enabling factors that may contribute to the development of new entrepreneurial ventures in an established large company and examined key elements in reaching an appropriate fit among existing corporate management and an intraentrepreneurial team.

### Innovative Solutions for Human Capital Staffing in the Hospitality Industry

Christopher Cunningham, Chief Science Officer, Logi-Serve; Co-author and presenter: Bruce Tracey

Using a proprietary storyboarding platform and a cloud-based dashboard analytics system, Logi-Serve has developed an assessment and decision-making support system that enhances the user experience, and improves the accuracy of the assessment and related decision-making process. The most important and immediate outcome from using this solution is hiring better employees who can deliver on service promises. The presenters pointed out the importance and use of scientific staffing procedures, to enhance employee performance, service quality, and an organization's brand.

### A 360-Degree View of the Guest

Madhav Mullanpudi, Senior Manager, Deloitte

A 360° view of the guest enables truly innovative service. The technology to gather, analyze, and apply the data necessary for a 360° view is available right now. Using this approach over time, service delivery becomes more and more customized and personalized, thereby enhancing guest loyalty and potentially boosting revenue. When one company gains a 360° view of its guests through innovation, competitors could seem blind by comparison. Service innovators using this approach are making their brands the #1 choice of consumers looking for an engaging, genuine experience.

### Assessing the Benefits of Reward Programs: A Recommended Approach & Case Study from the Lodging Industry

Bill Carroll, Senior Lecturer, Cornell University, School of Hotel Administration; Co-authors and presenters: Michael McCall and Clay Voorhees

Independent hotels have a specific need for some form of loyalty program to: (1) generate incremental revenue; (2) provide an alternative to competitive chain and OTA programs; and (3) enhance service personalization. Recent research clearly indicated a correlation between increased guest stay frequency and loyalty program membership. There is value in converting and retaining potential online travel agency and competitor hotel customers. Moreover, loyalty programs are a way to capture customer information for enhancing personalized service experiences.

## CHRS People Presentation Summaries (concluded)

### **Increasing Need for Service Innovation: Globally Diverse Employees, Wide Range of National Cultures**

Müge Yayla-Küllü, Assistant Professor of Operations Management, Rensselaer Polytechnic Institute, Lally School of Management; Co-authors and presenters: Jeffrey Durgee, Adelina Gnanlet, Christopher McDermott, and Praowpan Tansitpong

Because of the interactive role employees play in services, their behavior affects customer experiences directly. Employee behavior, in turn, is a function of the employees' cultures. Thus, cultural upbringing may affect service quality, and the relationships can vary in different segments of the same market. Service firms operate with employees from all over the world with a wide range of cultural norms. Many of these norms are associated with both positive and negative service quality outcomes. An awareness of the limitations and weaknesses of a cultural norm as it relates to a particular service quality outcome is the key first step in working to compensate for and overcome such a weakness.

### **Hoxell: A Successful Customer Experience Management Work System**

Carlo Fontana, Chief Executive Officer, Hoxell; Co-author and presenter: Gabriele Piccoli

While academics and consultants have been touting the benefits of customer relationship management, and more recently of customer experience management, theory is easy and practice is hard. Operators know that investing in the customer experience is important, but measuring results is difficult. Hoxell used techniques to ensure success, and gain tangible, measurable results. Rigorous measurement is essential.

### **Improving the Guest Experience through the Science of Music**

Bradley Newberger '08, Co-founder and President, Ambiance Radio; Co-author and presenter: Rick Newberger

Nearly every hospitality venue has music playing in the background. We explore why and how music influences guest (and staff) attitudes and behaviors. Because of the way the brain processes background music, it has an outsize influence on how guests feel about the totality of their experience in any particular space. When the music is right, everything about the guests' experience seems better

### **High Tech, High Touch: Capture, Comprehend, and Act on the Voice of Your Customers**

Natalie Osborn, Senior Industry Consultant, SAS Institute, Inc.

The proliferation of social media channels has brought the voice of the customer to the forefront. In addition to the need to capture, comprehend, and act on the unstructured text data contained within social media, hospitality companies also have volumes of unstructured data within the organization that needs to be explored. Unstructured text data presents some unique challenges when it comes to deriving insights. Using data visualization and text analytics techniques, one can unlock the insights in the data, whether it is from internal or external sources.

### **Empirical Models in Experience Measurement: Touch Points that Drive Restaurant Guest Loyalty**

James Coyle '87, President, Coyle Hospitality Group; Co-author and presenter: Jeff Gurtman

Restaurant brands rely on several methods of gauging experience quality and guest satisfaction. These methods include traditional quality assurance inspections, mystery shopping, social media monitoring, and various surveying methodologies. Many of these methods are designed by brands to gather compliance feedback about specific programs, service offerings, and general experience, as well as to measure the quality and condition of assets. In recent years, these traditional modes of measurement have evolved. An increasing number of brands have shifted their emphasis from "What is important to me and my brand?" to "What is important to my guest?" Correlating operational evaluation data and loyalty feedback from hundreds of restaurant visits from around the globe, Coyle illustrated the "moments of truth" that most directly lead to restaurant guest loyalty.

### **Surprise!—How Unexpected Delight or Anticipation Influences Sequence Effects in Services**

Michael Dixon PhD '11, Assistant Professor of Operations Management, Naval Postgraduate School; Co-authors and presenters: Rob Kwortnik, Rohit Verma, Liana Victorino

In many services there is a peak moment that defines the entire experience. This project reported on an experiment that varied the time at which the peak occurs (temporal placement) and investigated whether a design strategy of surprise (peak concealment) or anticipation (peak promotion) is best based on customer perceptions. Customer perceptions of the overall service and the peak experience are affected by the time at which the peak occurs within the service experience (that is, beginning, middle, or end of the experience) and whether that peak is a surprise or if it is anticipated. Consequently, service designers must decide whether it is best to conceal the peak experience to foster the element of surprise or to promote the peak in advance to build customers' anticipation.

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**Michael C. Sturman**, Director  
**Carol Zhe**, Program Manager  
**Glenn Withiam**, Executive Editor  
**Alfonso Gonzalez**, Executive Director of Marketing and Communications

Center for Hospitality Research  
Cornell University  
School of Hotel Administration  
537 Statler Hall  
Ithaca, NY 14853

607-255-9780  
chr.cornell.edu

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