Hotel stay scenarios based on emotional design research

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Hotel Stay Scenarios Based on Emotional Design Research

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Abstract

This paper elaborates on an emotion-oriented qualitative research project that aims at discovering design opportunities for enhancing hotel stay experiences of female business travelers. Photo elicitation and in-depth interviews are used as the key methods in studying emotions during hotel stays. To generate insights relevant to emotional design and experience design for hotels, data analysis methods based on appraisal theory in psychology and systematic coding are used. Research findings are presented by three main categories: emotions, triggers, and guest concerns. Two scenarios of optimal hotel stay experiences are also presented. These scenarios are character-rich storylines developed based on the research findings and depict hotel features that evoke pleasant emotions during four stages of hotel stay experiences: (1) Arrival, (2) room entry, (3) settling down and (4) return in the evening.

Conference theme: Design for hospitality

Keywords: hotel, experience design, scenario
The qualitative research study explained in this paper is emotion-oriented design research that focuses on enhancing hotel guests’ experiences. This research study has a two-part research design that uses photo elicitation and in-depth interviews as methods in studying hotel guest emotions. The ultimate aim is to discover design opportunities that will improve hotel stay experiences. The study is situated at the context of two design disciplines: emotional design and experience design. This paper explains the research context, research objectives, data collection methods, data analysis strategies, key findings, as well as presents two optimal hotel stay scenarios which are developed based on the findings.

1.0 Research Context and Objectives

This research study is cross-disciplinary in nature. While its subject is hospitality, it is situated at the context of both emotional design and experience design. The former is a design paradigm that emphasizes the importance of eliciting users’ pleasant emotional responses and design’s emotional dimensions that enrich user experience. Emotional design is a rapidly growing research area with subjects of research ranging from conceptual models to measurement tools to design methods in relation to emotional responses (Jordan, 2000; Desmet, 2002, 2006; Blythe & Hassenzahl, 2003; Norman, 2004; Chapman, 2005). On the other hand, experience design is a type of user-centered design that strives to understand the richness of real-world experiences from the users’ perspectives for translating insights into design outcomes that help users achieve optimal experiences (Margolin, 1997; Shedroff, 2001; Fulton Suri, 2004; Clark, Smith & Yamazaki, 2006).

This research study began by investigating “guest emotions” which refer to emotions that are experienced by hotel guests and evoked by hotels. In the hospitality research field, there is an increasing recognition on the importance of eliciting pleasant emotions and staging memorable experiences for hotel guests (Gilmore & Pine II, 2002; Erdly & Kesterson-Townes, 2003; Hendrie, 2004; Williams, 2006). Despite growing awareness, little research effort has been devoted to design in relation to hotels and guest emotions. This research study attempts to advance the much-needed knowledge through photography-based and interview-based methods that generated in-depth, qualitative insights about guest emotions that inform design for hotel stay experiences. Female business travelers are chosen as the research targets as they are a rapidly growing but understudied traveler segment.

There are three objectives for this research study: (1) To identify the sources that evoke emotions of female business travelers during hotel stay experiences; (2) To investigate why
those sources evoke emotions; and (3) To suggest design opportunities that will enhance the hotel stay experiences of female business travelers.

2.0 Research Design: Photo Elicitation and In-depth Interviews

The research project is consisted of two studies. The first study used photo elicitation as the key method and the second study used in-depth interviews. The combination of photo elicitation and in-depth interviews not only yielded robust data, but also enabled understanding guest emotions and experiences from both “micro” and “macro” perspectives. This is because field-based data on specific cases of guest emotions were obtained through photo elicitation, while broader views about hotel stays based on research participants’ past experiences were solicited through in-depth interviews. Research participants were recruited based on criterion sampling (Miles & Huberman, 1994).

2.1 Photo Elicitation

Photo elicitation is a research technique that combines the use of photographs with interview for data collection (Harper, 2002). Its key strength is the integration of visual and verbal data (Rose, 2007). 27 Hong Kong-based professional women who traveled outside Hong Kong for work and stayed at hotels during July 2007 to January 2008 were recruited as research participants. Each participant was asked to take photos during her hotel stay to show things, places and events in the hotel that evoked her emotions. The photos were collected from research participants after they return from business trips. Each case was followed up with a one-on-one, semi-structured interview that used the collected images to elicit the participant’s explanations and comments about emotions in her hotel stay experience. Qualitative data about guest emotions are collected both visually and verbally. The photos show the sources of guest emotions, and the verbal data from follow-up interviews offer interpretation of the hotel guest’s emotional experience. 570 photos are collected, of which 375 are emotion-relevant photos.

2.2 In-depth Interviews

32 Hong Kong-based women who had traveled for purposes of work outside Hong Kong and stayed at hotels in the last two years were interviewed. One-on-one, semi-structured interviews were conducted to understand memorable hotel stay experiences. The questions were open-ended and focused on six broad topics related to hotel stays: pleasant experiences, unpleasant experiences, specific emotions, overall impressions, expectations and anticipated experiences. Respondents’ comments regarding emotions experienced during hotel stays were probed
through the technique of laddering (Diller, Shedroff & Rhea, 2006) to gain a deep understanding about meanings related to interviewees’ concerns regarding hotel stays.

3.0 Methods of Data Analysis

Collected data were analyzed with multiple data analysis approaches for design-relevant insights. An analytical strategy based on appraisal theory in psychology is used to analyze data from the photo elicitation study for identifying dominant guest emotions, triggers and guest concerns. Systematic coding is the key method in analyzing the data from the in-depth interview study to understand important guest concerns in detail.

3.1 Analyzing Data from the Photo Elicitation Study

Appraisal theory originates from the cognitive tradition of emotion research in psychology. The core argument of appraisal theory is that an emotion involves an evaluation process (appraisal) that assesses the benefit or harm of a stimulus or situation (Lazarus, 1991; Smith & Lazarus, 1993; Roseman & Smith, 2001). According to appraisal theorists, a person appraises a stimulus or situation in relation to his or her relevant concerns, therefore every emotion embodies at least one concern (Frijda, 1993; Roseman & Smith, 2001). Types of concerns include goals (states of affairs that people want to achieve), standards (the ways people believe things should be) and attitudes (people’s preferences) (Ortony, Clore & Collins, 1988). A stimulus or event that matches or fulfills the person’s concern(s) is appraised as beneficial and leads to pleasant emotion(s). Conversely, a stimulus or event that mismatches or contradicts one’s concern(s) is appraised as harmful and results in unpleasant emotion(s). Appraisal theory is chosen because it breaks down a case of emotion clearly into trigger, cognitive evaluation and emotional response.

Each case of reported guest emotion was analyzed by organizing information into a table with five components:

<table>
<thead>
<tr>
<th>(1) Trigger</th>
<th>The source that triggered the research participant’s emotion, including objects, places or events in the hotel context.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) Emotion</td>
<td>The particular type of emotion reported by the research participant.</td>
</tr>
<tr>
<td>(3) Appraisal</td>
<td>The research participant’s explanation on why the reported emotion was experienced. This is interpreted as her appraisal that led to the emotional response.</td>
</tr>
<tr>
<td>(4) Concerns</td>
<td>The research participant’s appraisal was analyzed to identify her main underlying concerns.</td>
</tr>
<tr>
<td>(5) Insight groups</td>
<td>Concerns and other design-relevant findings were then organized into major insight groups for discovering design opportunities that will enhance the hotel stay experiences of female business travelers.</td>
</tr>
</tbody>
</table>

Table 1: Five components of data analysis table for the photo elicitation study.
3.2 Analyzing Data from the In-depth Interview Study

Systematic coding is a widely used data analysis approach in qualitative research studies, especially those in the field of social science. It is the process of identifying themes or concepts that are in the data through organizing text into categories (Creswell, 1998; Ezzy, 2002). All interview data in this study was transcribed into text for the purpose of coding. Interviewees’ comments were systematically coded to identify main themes regarding their concerns. While “topic coding” (Richards, 2005) was used to organize data into categories according to the subject of discussion; “analytical coding” (Richards, 2005) was used to interpret abstract concepts and meanings regarding hotel stay experiences to gain deep insights into concerns that are important to female business travelers.

4.0 Key Findings

4.1 Emotions

In the photo elicitation study, research participants reported 418 cases of emotions which were evoked by things, places and events during their hotel stays. Among all the cases, 285 are pleasant emotions and 133 are unpleasant emotions. Details on the number of cases are listed in Table 2. It must be emphasized that due to the qualitative nature of this study, the frequency counts presented below are for the purpose of identifying which types of emotions are more prevalent in research participants’ hotel stay experiences and provided as a reference of the study’s scale only.

<table>
<thead>
<tr>
<th>Pleasant Emotions</th>
<th>No. of cases</th>
<th>Unpleasant Emotions</th>
<th>No. of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheerful</td>
<td>3</td>
<td>Angry</td>
<td>3</td>
</tr>
<tr>
<td>Delighted</td>
<td>91</td>
<td>Annoyed</td>
<td>36</td>
</tr>
<tr>
<td>Happy</td>
<td>25</td>
<td>Bored</td>
<td>6</td>
</tr>
<tr>
<td>Pleasantly surprised</td>
<td>33</td>
<td>Disappointed</td>
<td>13</td>
</tr>
<tr>
<td>Pleased</td>
<td>111</td>
<td>Discontented</td>
<td>41</td>
</tr>
<tr>
<td>Relieved</td>
<td>9</td>
<td>Fearful</td>
<td>3</td>
</tr>
<tr>
<td>Warm-hearted</td>
<td>6</td>
<td>Frustrated</td>
<td>4</td>
</tr>
<tr>
<td>Others *</td>
<td>7</td>
<td>Irritated</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Others *</td>
<td>17</td>
</tr>
</tbody>
</table>

* “Others” are those emotions with less than 3 cases

Table 2: Number of cases by types of emotions.
4.2 Triggers

A wide range of triggers were reported in the photo elicitation study. After data analysis, the most frequently reported triggers of things, places and events that evoked emotions during hotel stays are identified and organized into 12 groups. These triggers indicate the types of tangible elements and intangible processes that the research participants paid most attention to. This section presents the triggers and explains what they refer to. It must be emphasized that while the presence of these triggers evoked guest emotions, the absence of them also evoked emotions.

The 12 groups of triggers, in descending order of importance, are:

<table>
<thead>
<tr>
<th>1. Toiletries</th>
<th>Bathroom products for cleansing, personal care and hygiene, such as shower gel, shampoo, conditioner, soap, toothpaste, shower cap etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Furniture</td>
<td>Furniture both inside guestrooms and in public areas of hotels. The majority of photos taken in this group shows chairs, lamps, beds, mirrors and tables etc.</td>
</tr>
<tr>
<td>3. Gifts</td>
<td>Gifts such as complimentary packs, souvenirs, welcome snack, fruit bowl, and drinks etc.</td>
</tr>
<tr>
<td>4. Decorations</td>
<td>Such as paintings, floral arrangements, sculptures, art works and other decorative objects displayed inside hotels.</td>
</tr>
<tr>
<td>5. Guestroom facilities</td>
<td>In-room facilities including kettle, slippers, electricity outlets, hangers, hooks, alarm clock, light switches, air-conditioner controls, iron, ironing board, and bathrobe etc.</td>
</tr>
<tr>
<td>6. Bathroom facilities</td>
<td>Facilities in bathroom such as hair dryer, shower facilities, bath facilities, vanity area, towels and towel racks etc.</td>
</tr>
<tr>
<td>7. Light and ambience</td>
<td>The level of light and the ambience created by lighting effects in guestrooms, hotel lobbies and corridors etc.</td>
</tr>
<tr>
<td>8. Interior layout</td>
<td>Layout of guestroom, spaciousness, placement of in-room furniture, placement of in-room facilities, motif and color scheme of guestroom interiors etc.</td>
</tr>
<tr>
<td>9. Services</td>
<td>Services offered in hotels, including check in, check out, housekeeping, also services in hotel restaurants, concierge, and business center etc.</td>
</tr>
<tr>
<td>10. Attitude of hotel staff</td>
<td>Perception of hotel staff’s attitude during service interactions, for example, whether the staff is helpful, friendly, cheerful, or shows respect towards guests.</td>
</tr>
<tr>
<td>11. Views</td>
<td>The view from the guestroom’s window, and the view from the hotel restaurant etc.</td>
</tr>
<tr>
<td>12. Signage and way-finding</td>
<td>Signage in public areas of hotels (such as lobbies and corridors) that helps hotel guests find their ways.</td>
</tr>
</tbody>
</table>

Table 3: Triggers of emotions reported by research participants.

4.3 Guest Concerns

Results of analysis on interview data of both the photo elicitation study and the in-depth interview study show that several main themes run through the research participants’
explanations regarding pleasant emotions evoked in the hotel context. This section highlights the four most dominant concerns, namely, care, convenience, comfort, exploration, and elaborates on how hotel guests perceive these concepts in relation to pleasant hotel stay experiences.

4.3.1 Care
Female business travelers who participated in this research are most concerned about hotels’ care and thoughtfulness. Pleasant emotions were very often evoked by details that showed the hotel’s anticipation of guests’ needs and the hotel’s effort in catering to those needs. Keywords such as “thoughtful”, “considerate”, “caring”, “effort” and “detail” were repeatedly mentioned by research participants when explaining why they felt pleasant emotions towards hotel amenities and services. Example triggers are toiletry set that includes a wide range of items, complimentary kit for female guest, well-prepared tea-making facilities, readily available iron and ironing board etc. Some seemingly small details were noticed by research participants and triggered pleasant emotions because they reflected the hotel’s attention to details and thoughtfulness about guests’ needs. For example, hooks in the bathroom, accessory tray by the bedside, and towels in two colors for twin rooms etc. Also, evidences of housekeeping and evening turn-down service that communicate goodwill such as greeting messages, notes, reminders and souvenirs elicit many pleasant emotions as they are interpreted by the guests as gestures that convey care.

4.3.2 Convenience
To the research participants, business trips are often hectic and stressful time in which they must achieve much work within a short period of time. The hotel is a temporary office as well as temporary home. Hence, pleasant emotions resulted when the hotel offers convenient features and services that facilitate work. These features range from the practical set-up of the desk area in the guestroom, free and easy Internet access, well placed electricity sockets, to bright light for working and business center with extended opening hours and professional staff etc. From the research participants’ perspective, convenience is judged not only from the hotel facilities and services that facilitate work, but also from the hotel staff’s ability in solving business-trip related hassles as well as unexpected problems.

4.3.3 Comfort
To a very large extent, comfort in the hotel context comes from relaxation. Hence, hotel features that enable guests to relax often evoked delight and happiness in research participants. The research findings indicate that research participants not only noticed the features per se, but also paid attention to their ergonomics and quality. An example is a well-defined area in the room for
relaxation other than the bed, such as a lounge sofa near the window. Apart from relaxation, the
essence of comfort also lies in two aspects: The first is hotel features that enable easy adaptation
to a new environment. For example, high-quality products such as slippers and towels, and user-friendly in-room temperature control etc. The second aspect is hotel offerings that match with
the guest’s preferences, examples are favorite in-room set-up arrangements and favorite food.

4.3.4 Exploration
An interesting finding is that some female business travelers consider the hotel stay experience
itself as an exploration in the sense that they could experience something new or learn about
certain cultural elements of a different place. This concern is especially prevalent among those
research participants who had time for leisure activities during their business trips. Pleasant
emotions such as surprise and delight were often evoked by unusual interior design style,
interior design elements with subtle cultural motif, artistic decorations, and local food prepared
by the hotel.

5.0 Hotel Stay Scenarios

Scenarios are character-rich storylines that describe the contexts of use for design. They
communicate the essence of design ideas within probable contexts of use (IDEO, 2003). Based
on the research findings, a number of hotel stay scenarios that show optimal hotel stay
experiences for female business travelers are developed. This section presents two among them.
To communicate the scenarios effectively and specifically, two character profiles are developed
to represent the archetypes of female business travelers. Because of the limited length of this
paper, these scenarios are condensed and highlight only four aspects during the first day of the
characters’ hotel stay experiences: (1) Arrival, (2) room entry, (3) settling down and (4) return
in the evening. Details regarding hotel amenities and services are woven into the scenarios.
Relevant photos taken by research participants are presented as examples where appropriate.
These scenarios should be read as storylines which depict hotel features that evoke hotel guests’
pleasant emotions, rather than “scripts” that dictate the guests’ experiences.

5.1 Scenario 1: A Caring Hotel with Style

Mavis is a 32-year-old business consultant. She makes two to five business trips a year. This
time she travels alone to attend an overseas conference. The conference lasts for 3 days and she
plans to stay behind for sightseeing. She has booked a six-night stay in a boutique hotel through
the hotel’s website. She has chosen this hotel because it seems a new and interesting experience
to stay at a boutique hotel with nature-inspired themes. The hotel offers three types of themed
rooms for guests to choose from. She has selected an ocean-themed room. This is the first time she stays in this hotel.

5.1.1 Arrival
Upon arrival at the hotel, Mavis finds that the lobby is small but cosy. The friendly staff at the front desk invites her to sit down for check-in and offers her a cup of tea. Check-in is efficient and completed within five minutes. As the bell attendant accompanies Mavis to her room, he politely explains some of the services that the hotel offers. On the way to her room, Mavis notices there are many nature-inspired artworks in the lift lobby and the corridor, some are displayed with brief descriptions, just like an art gallery. It is interesting that the hotel itself seems a place worth exploring.

![Figure 1: An example of artwork displayed in hotel.](image)

5.1.2 Room Entry
Mavis thanks the bell attendant and shuts the door. As she takes a good look at her room, she thinks, “Wow, this is wonderful.” The room is comfortably furbished with subtle elegant touches with an ocean motif. The interior is a harmony of shades of blue and white from the drapes to the furniture and the bed. It’s such a difference from the seemingly standardized white and brown interior in most hotels. Mavis is delighted to find a welcome tray with fresh fruit and local snack, well-prepared with cutlery available. In addition to a bottle of complimentary water, there is a box of tissue, an electric kettle and some drinks including teabags, chocolate, and coffee. She is particularly pleased about the local snack because she can have a taste of the local flavor.
5.1.3 Settling Down

Mavis then checks out the bathroom. She is happy to see the well-lit bathroom with enough space on the vanity for placing her own things such as makeup kit and skincare products. She is delighted that there is a neatly arranged set of wide range of toiletries that includes cotton pads, lotion, and mouthwash in addition to the usual basic items. Mavis is pleasantly surprised by a small complimentary kit for female guest. It contains small but useful items such as hand cream, stockings, elastic band, nail polish remover etc. Those are things that women travelers usually forget to pack into their luggage but they become a nuisance when a sudden need for them arise. This complimentary kit shows the hotel is thoughtful about women travelers’ needs. Mavis is also delighted to find a hygienic compartment for drying hand-washed clothes. She has never seen such a convenient facility in other hotels before.

As Mavis starts to unpack her luggage, she opens the wardrobe to put her clothes inside. She is pleased that the iron and the ironing board are readily available because she hates calling the hotel staff to request them. She also appreciates that the safe inside the wardrobe is big enough to store her notebook computer when she doesn’t need to use it. Mavis also notices other thoughtful in-room details such as the handy coat hanger, the bedside accessory tray, and the umbrella.
5.1.4 Return in the Evening
Returning from the first day of conference, Mavis is pleasantly surprised to see the bed covers turned back and a small gift basket placed on the bed. Inside the basket, there are: a nice-dreams message, two organic chamomile teabags, and a sachet of bath salt. She notices a pair of high-quality slippers and a fluffy carpet placed on the floor near the bedside.

5.2 Scenario 2: Familiar Favorites
Sandy is a 43-year-old Director of Human Resources at an international company. She is a frequent business traveler who makes 10 to 15 trips a year to four overseas branch offices. The purpose of this trip is to offer training to staff in the overseas branch office and meet the management there for staff recruitment purposes. Her trip lasts for five days. She does not plan to stay behind nor has time for leisure activities. She has booked a four-night stay at a high-quality hotel. She is a repeat guest and this time is her fourth stay at this hotel.
5.2.1 Arrival
Arriving at the large grand hotel lobby, Sandy sees familiar hotel staff. Mable, the same staff who served her during her previous stays, greets Sandy by name and says welcome back. As Mable leads Sandy to the lift, she tells Sandy the hotel has prepared an executive suite on the highest level of the executive floor with a nice view for her. Sandy is glad that she is allocated her favorite room type.

5.2.2 Room Entry
The in-room check-in is efficient as usual. Before leaving the room, Mable tells Sandy to call her if she needs anything. Sandy thinks it is nice to have someone like a personal assistant at this hotel to whom she can ask some questions. The room is spacious and comfortable. Everything looks nice and familiar, well, except the floral decorations and the welcome tray. Sandy is pleasantly surprised to see a piece of welcome cake beside the fruit bowl. She finds a welcome-back note from the manager saying the hotel has prepared her favorite fruit, cake and the day’s newspaper for her.

Figure 6: Fruit bowl and welcome snack.

5.2.3 Settling Down
Sandy likes to stay at a suite because the room is spacious with the work area and the relaxation area well defined. She does not mind paying a bit extra for an executive suite as the company covers the money. As Sandy sets up her notebook computer at the work desk, she is pleased about the convenient details around the desk. There are four well-placed multi-country sockets so she can easily charge her notebook and other electronic devices such as mobile phones and digital camera. The wireless Internet is free and connection is quick and easy. The desk area is a comfortable place to work as the desktop light is bright enough and the chair is comfortable with adjustable height. There is also a complete set of stationery in the desk drawer.
5.2.4 Return in the Evening
When Sandy returns after a day’s work, it’s already 10 o’clock at night. She is pleased to see the evidence of evening turn-down service: the bed covers turned back, a sleep-well greeting message placed along with candies and a little card showing tomorrow’s weather forecast. These are thoughtful little touches that Sandy appreciates.

Sandy switches on the TV and selects a title from the large movie selection. After watching for several minutes, Sandy decides to stop the movie as it is not that interesting. She pulls out a wireless keyboard which is linked up with the TV. As the flat-screen TV is also a convenient information interface, Sandy browses the Internet and checks her emails quickly without switching on her notebook, she also checks out some hotel information and billing information.

It’s time for a bath. Sandy is delighted that bath salts are provided in addition to the branded toiletries. There is even a small pillow near the bathtub for relaxation. The bathroom is also well equipped with options of rain shower and massage shower. After the bath, Sandy sets the room’s lighting at the dimmest level through the user-friendly light panel that offers four levels of brightness. She notices that there is the right number of pillows on the bed. She had requested the hotel to put only two pillows last time as she doesn’t want a bed crowded with more than
enough pillows. She is pleased that the type of pillows is what she had chosen from the pillow menu during her last stay. The hotel probably has her preferences recorded in a database and has things well prepared for her stay before she arrives.

![Bathroom set-up that enhances relaxation.](image)

Figure 9: Bathroom set-up that enhances relaxation.

![A panel that enables adjustment of in-room lighting at four levels of brightness.](image)

Figure 10: A panel that enables adjustment of in-room lighting at four levels of brightness.

### 6.0 Conclusion

This paper has elaborated on two among several optimal hotel stay scenarios developed based on the findings of design research studies on hotel guest emotions. These scenarios highlight hotel features that evoke pleasant emotions by matching female business travelers’ concerns for care, convenience, comfort, and exploration. Hotel features mentioned in the scenarios may serve as references and inspirations for hoteliers and designers in terms of improving hotel stay experiences of female business travelers. Both research findings and the optimal scenarios suggest that the relational message of care and the personalization of hotel features are two of
the most important means of evoking pleasant guest emotions. Further effort in research on conveying care in the hotel context and the design of systems that facilitate personalization of hotel features is therefore highly recommended.

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References


