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## **A Detailed Study of the Expected and Actual Use of Hotel Amenities**

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## **Introduction**

Choosing hotel amenities is a critical task for hotel owners and operators. Offering too few amenities, or the wrong kind of amenities, can negatively affect the brand positioning of the hotel and the guest's service experience. Offering too many amenities can waste capital, increase operating costs, and put unnecessary burdens on service delivery. This results of this study will provide information to hotel owners and operators to help them decide what amenities to offer, to whom, and under what circumstances.

## **Prior Research**

In three previous studies of predicted and actual use of fifty hotel amenities reported by 724 guests in thirty-three hotels operated by six hotel brands—one upscale, two upper upscale, and three luxury—belonging to one hotel company (Hamilton, Rust, Wedel and Dev 2017; Dev, Hamilton and Rust 2017; Hamilton, Rust and Dev 2017), we developed a mathematical method that enables hotel brand managers and property owners to calculate the return on investment (ROI) for individual amenities.[\[2\]](#) In these prior studies, we focused on three amenities: free in-room internet access, free bottled water, and fitness center. We found that expected use of particular amenities play a role in the consumer's choice of choosing the right hotel, and the actual use of particular amenities plays a role in attracting repeat visitors.[\[3\]](#)

In a fourth study, we conducted a detailed analysis of the over predictions and under predictions of all fifty amenities (Dev, Hamilton, Rust and Valenti 2018) which focused on expected and actual use of each amenity.<sup>[4]</sup> In this fourth study, amenities that were highly over-predicted were an alarm clock, a spa, and in-room dining for dinner and late-night snacks. That is, a much larger percentage of guests expected to use these amenities than actually did so (although they still were used by some guests). Unexpected under predictions included lobby seating, valet parking, and concierge service, for which the percentage of guests expecting to use the service was noticeably smaller than the percentage who did use them.

## This Study

In this fifth study, we extend prior research to further understand the intention and behavior of hotel guests' expected and actual use of amenities in a more detailed way. Specifically, we examine amenity prediction and utilization based on multiple combinations of chain scale, gender, purpose of travel, brand type, length of stay and location.

## Results

### Exhibit 1: Amenity use by length of stay

	1 - 2 nights			3-4 nights			5+ nights		
	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference
<b>Valet Service</b>	0.17	0.28	-65%	0.10	0.19	-90%	0.14	0.20	-43%
<b>Early check in</b>	0.45	0.33	27%	0.29	0.22	24%	0.36	0.29	19%
<b>Auto check in</b>	0.11	0.01	91%	0.08	0.01	88%	0.08	0.01	88%
<b>Bell desk</b>	0.17	0.22	-29%	0.14	0.27	-93%	0.30	0.44	-47%
<b>Lobby seating</b>	0.26	0.41	-58%	0.28	0.42	-50%	0.33	0.48	-45%
<b>Lobby internet</b>	0.34	0.21	38%	0.36	0.25	30%	0.43	0.29	33%
<b>Lobby food</b>	0.28	0.29	-4%	0.27	0.29	-7%	0.36	0.27	25%
<b>Concierge</b>	0.28	0.36	-29%	0.29	0.42	-45%	0.44	0.64	-45%
<b>Business Center</b>	0.09	0.11	-22%	0.18	0.15	17%	0.16	0.22	-38%
<b>Laundry</b>	0.04	0.02	50%	0.04	0.02	50%	0.11	0.07	36%
<b>Wakeup call</b>	0.38	0.21	45%	0.39	0.25	36%	0.34	0.31	9%
<b>Gift Shop</b>	0.27	0.21	22%	0.28	0.27	4%	0.39	0.33	15%
<b>Restaurant breakfast</b>	0.41	0.26	37%	0.49	0.33	33%	0.60	0.49	18%

<b>IRD Breakfast</b>	0.22	0.11	50%	0.25	0.14	44%	0.28	0.13	54%
<b>Restaurant Lunch</b>	0.21	0.10	52%	0.27	0.19	30%	0.46	0.31	33%
<b>IRD Lunch</b>	0.10	0.16	-60%	0.11	0.29	-164%	0.11	0.50	-355%
<b>Restaurant dinner</b>	0.35	0.02	94%	0.45	0.04	91%	0.71	0.01	99%
<b>IRD Dinner</b>	0.18	0.07	61%	0.19	0.11	42%	0.24	0.10	58%
<b>IRD Midnight snacks</b>	0.23	0.07	70%	0.19	0.06	68%	0.27	0.06	78%
<b>Bar</b>	0.48	0.36	25%	0.51	0.45	12%	0.58	0.54	7%
<b>Minibar</b>	0.12	0.07	42%	0.10	0.10	0%	0.10	0.07	30%
<b>Fridge</b>	0.51	0.31	39%	0.48	0.36	25%	0.69	0.57	17%
<b>Mineral Water</b>	0.54	0.43	20%	0.45	0.37	18%	0.59	0.50	15%
<b>Coffee maker</b>	0.61	0.44	28%	0.56	0.43	23%	0.63	0.53	16%
<b>Room Internet</b>	0.66	0.36	45%	0.71	0.43	39%	0.61	0.40	34%
<b>TV</b>	0.90	0.84	7%	0.92	0.85	8%	0.92	0.93	-1%
<b>Radio</b>	0.40	0.20	50%	0.36	0.20	44%	0.47	0.18	62%
<b>MP3</b>	0.39	0.15	62%	0.30	0.14	53%	0.31	0.16	48%
<b>Alarm</b>	0.63	0.33	48%	0.63	0.39	38%	0.72	0.34	53%
<b>Room desk</b>	0.77	0.70	9%	0.83	0.72	13%	0.84	0.67	20%
<b>Room light</b>	0.79	0.70	11%	0.77	0.72	6%	0.84	0.78	7%
<b>Phone in</b>	0.37	0.33	11%	0.34	0.35	-3%	0.41	0.38	7%
<b>Phone out</b>	0.24	0.13	46%	0.25	0.14	44%	0.29	0.16	45%
<b>Movie on Demand</b>	0.20	0.08	60%	0.14	0.06	57%	0.19	0.13	32%
<b>Hair Dryer</b>	0.68	0.61	10%	0.60	0.57	5%	0.74	0.70	5%
<b>Iron &amp; Ironing board</b>	0.56	0.41	27%	0.53	0.42	21%	0.64	0.53	17%
<b>Closet</b>	0.89	0.81	9%	0.93	0.90	3%	0.99	0.93	6%
<b>Packaged soap</b>	0.81	0.86	-6%	0.85	0.85	0%	0.81	0.89	-10%
<b>Dispensing soap</b>	0.40	0.27	33%	0.43	0.22	49%	0.44	0.24	45%

<b>Bath robe</b>	0.42	0.27	36%	0.39	0.24	38%	0.50	0.37	26%
<b>Safe</b>	0.62	0.43	31%	0.59	0.44	25%	0.71	0.61	14%
<b>Pool</b>	0.36	0.21	42%	0.41	0.30	27%	0.61	0.52	15%
<b>Spa</b>	0.15	0.04	73%	0.19	0.13	32%	0.36	0.16	56%
<b>In room fitness equipment</b>	0.15	0.01	93%	0.14	0.02	86%	0.07	0.02	71%
<b>Fitness Center</b>	0.46	0.18	61%	0.47	0.20	57%	0.43	0.26	40%
<b>Express checkout</b>	0.45	0.29	36%	0.48	0.31	35%	0.52	0.31	40%
<b>Late checkout</b>	0.46	0.28	39%	0.33	0.20	39%	0.37	0.20	46%
<b>Folio under door</b>	0.61	0.60	2%	0.60	0.69	-15%	0.73	0.77	-5%
<b>Boarding pass printing</b>	0.39	0.21	46%	0.59	0.31	47%	0.67	0.46	31%

Studying the expected and actual usage of amenities based on the length of stay of the guests revealed some interesting insights and confirmed some of our intuitive perceptions regarding amenity use. Here are some notable insights from Exhibit 1:

- In-room dining (IRD) lunch is the most under predicted amenity where 11% expected to use this facility, however 50% of the guests who stay for more than 5 nights ended up ordering room service for lunch at least once during their stay. We see a steady decline in the usage of this amenity as the length of stay gets shorter.
- An area where hoteliers can leverage resident guests to increase revenue is the restaurant dinner, which is highly over predicted by guests as less than 5% guests eat dinner at the restaurant. 71% long stay guests expected to use the restaurant for dinner but only 1% guests used which can be potential opportunity for hotel managers to entice the long stay guests to eat in the restaurant and bring in incremental revenue.
- We see a counter intuitive trend however, in terms of usage of the business center. Contrary to our reasonable hypothesis that long stay guests travel with their office and should have minimal requirement for a business center, 22% of the 5+ night guests tend to use the business center, which is higher than guests staying 1-2- or 3-4-night guests.
- The usage of laundry has been over predicted by all guests across all length of stay, and even though 11% guests expected to use the laundry services while staying for more than 5 nights, only 7% guests used the laundry services. Only 2% of the guests staying for 1-4 nights used for the laundry. This may make a case for outsourcing the laundry by more hotels to save on labor and capital costs.
- The long stay guest effect can also be seen in the usage of bell desk which is an under predicted amenity by all guests and 44% of the 5+ night stay guests use the bell desk services.

- The television remains one of the most used amenity, which creates an opportunity for hotels to upgrade and customize this amenity by investing in smart next generation TVs and offer personalized content.

**Exhibit 2: Amenity Use by Hotel Location**

	URBAN			SUBURBAN			RESORT		
	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference
<b>Valet Service</b>	0.12	0.2	-67%	0.16	0.26	-63%	0.15	0.27	-80%
<b>Early check in</b>	0.38	0.28	26%	0.39	0.24	38%	0.37	0.3	19%
<b>Auto check in</b>	0.09	0.01	89%	0.14	0.02	86%	0.09	0.01	89%
<b>Bell desk</b>	0.16	0.27	-69%	0.14	0.14	0%	0.21	0.32	-52%
<b>Lobby seating</b>	0.28	0.43	-54%	0.31	0.37	-19%	0.25	0.42	-68%
<b>Lobby internet</b>	0.321	0.23	28%	0.43	0.21	51%	0.388	0.25	36%
<b>Lobby food</b>	0.28	0.27	4%	0.41	0.35	15%	0.24	0.28	-17%
<b>Concierge</b>	0.29	0.45	-55%	0.21	0.27	-29%	0.36	0.44	-22%

<b>Business Center</b>	0.12	0.11	8%	0.12	0.10	17%	0.16	0.18	-13%
<b>Laundry</b>	0.05	0.03	40%	0.06	0.02	67%	0.05	0.02	60%
<b>Wakeup call</b>	0.41	0.26	37%	0.35	0.17	51%	0.36	0.23	36%
<b>Gift Shop</b>	0.25	0.22	12%	0.25	0.13	48%	0.34	0.33	3%
<b>Restaurant breakfast</b>	0.41	0.24	41%	0.42	0.29	31%	0.55	0.42	24%
<b>IRD Breakfast</b>	0.24	0.14	42%	0.27	0.17	37%	0.23	0.11	52%
<b>Restaurant Lunch</b>	0.2	0.08	60%	0.14	0.05	64%	0.39	0.32	18%
<b>IRD Lunch</b>	0.1	0.03	70%	0.11	0.02	82%	0.11	0.03	73%
<b>Restaurant dinner</b>	0.34	0.15	56%	0.33	0.19	42%	0.59	0.42	29%
<b>IRD Dinner</b>	0.19	0.08	58%	0.23	0.09	61%	0.18	0.1	44%
<b>IRD Midnight snacks</b>	0.22	0.05	77%	0.27	0.09	67%	0.2	0.07	65%
<b>Bar</b>	0.48	0.4	17%	0.42	0.33	21%	0.57	0.47	18%
<b>Minibar</b>	0.1	0.08	20%	0.14	0.1	29%	0.12	0.08	33%
<b>Fridge</b>	0.45	0.27	40%	0.59	0.32	46%	0.59	0.48	19%
<b>Mineral Water</b>	0.48	0.35	27%	0.58	0.52	10%	0.52	0.45	13%
<b>Coffee maker</b>	0.58	0.4	31%	0.67	0.51	24%	0.58	0.49	16%
<b>Room Internet</b>	0.69	0.42	39%	0.72	0.36	50%	0.63	0.36	43%
<b>TV</b>	0.92	0.85	8%	0.91	0.82	10%	0.9	0.87	3%
<b>Radio</b>	0.39	0.2	49%	0.33	0.23	30%	0.4	0.18	55%
<b>MP3</b>	0.34	0.12	65%	0.45	0.21	53%	0.32	0.14	56%
<b>Alarm</b>	0.67	0.4	40%	0.6	0.26	57%	0.61	0.33	46%
<b>Room desk</b>	0.83	0.75	10%	0.83	0.71	14%	0.77	0.65	16%
<b>Room light</b>	0.83	0.75	10%	0.81	0.76	6%	0.74	0.66	11%
<b>Phone in</b>	0.35	0.33	6%	0.4	0.37	8%	0.36	0.35	3%
<b>Phone out</b>	0.23	0.16	30%	0.3	0.12	60%	0.26	0.12	54%
<b>Movie on Demand</b>	0.17	0.07	59%	0.22	0.06	73%	0.15	0.09	40%
<b>Video games</b>	0.02	0.01	50%	0.03	0.01	67%	0.02	0	100%

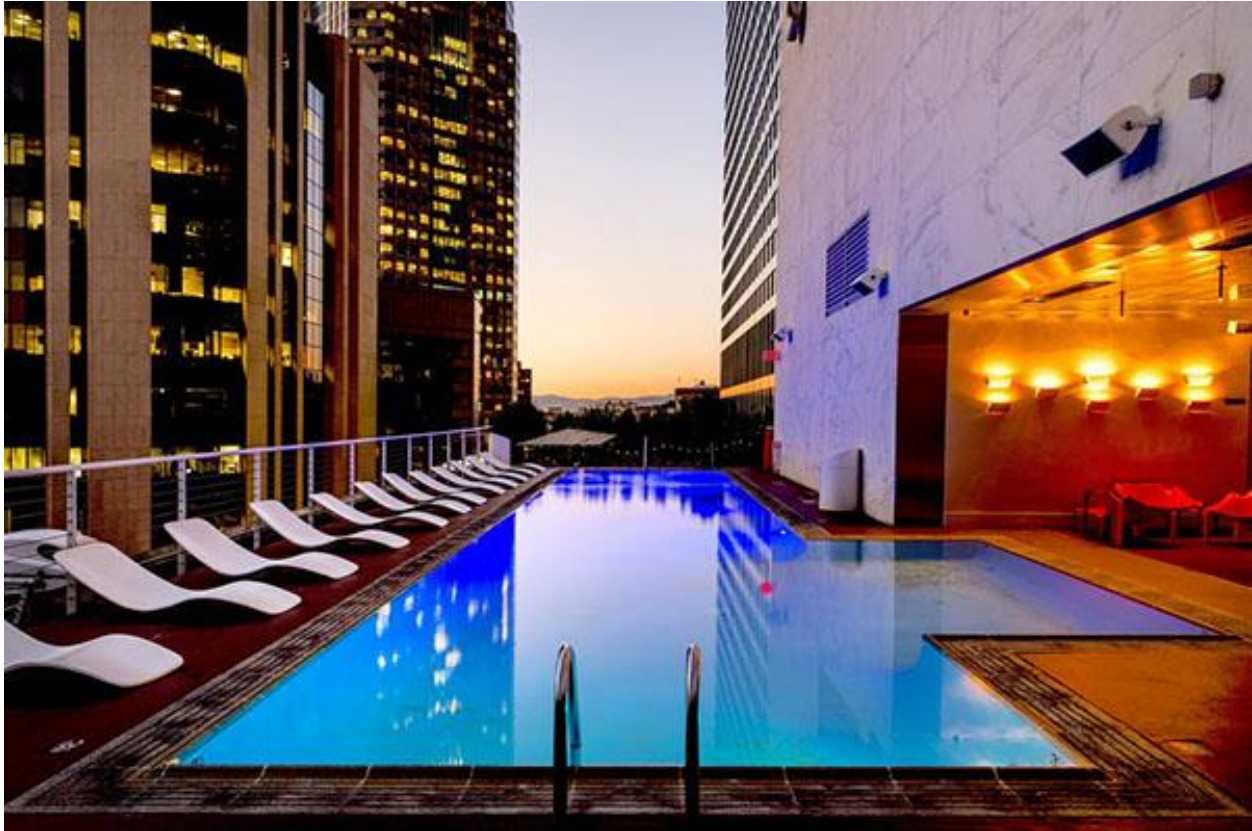
<b>Hair Dryer</b>	0.67	0.62	7%	0.68	0.57	16%	0.64	0.6	6%
<b>Iron &amp; Ironing board</b>	0.57	0.42	26%	0.52	0.39	25%	0.56	0.45	20%
<b>Closet</b>	0.92	0.86	7%	0.9	0.8	11%	0.91	0.87	4%
<b>Packaged soap</b>	0.83	0.85	-2%	0.77	0.82	-6%	0.85	0.89	-5%
<b>Dispensing soap</b>	0.39	0.21	46%	0.4	0.41	-2%	0.47	0.22	53%
<b>Bath robe</b>	0.39	0.25	36%	0.44	0.23	48%	0.45	0.31	31%
<b>Safe</b>	0.62	0.45	27%	0.59	0.31	47%	0.65	0.52	20%
<b>Pool</b>	0.15	0.06	60%	0.5	0.24	52%	0.71	0.58	18%
<b>Spa</b>	0.06	0.02	67%	0.08	0.02	75%	0.39	0.2	49%
<b>In room fitness equipment</b>	0.11	0.01	91%	0.2	0.04	80%	0.14	0.01	93%
<b>Fitness Center</b>	0.46	0.15	67%	0.49	0.25	49%	0.46	0.24	48%
<b>Express checkout</b>	0.48	0.31	35%	0.51	0.33	35%	0.47	0.28	40%
<b>Late checkout</b>	0.39	0.24	38%	0.5	0.24	52%	0.39	0.23	41%
<b>Folio under door</b>	0.62	0.62	0%	0.58	0.66	-14%	0.63	0.7	-11%
<b>Boarding pass Printing</b>	0.48	0.24	50%	0.45	0.19	58%	0.58	0.36	38%

Here are some insights from the analyses of amenity prediction and use organized by location type presented in Exhibit 2:

- Across all locations, valet service is one of the highly under predicted amenity. A quarter of all guests use this amenity, slightly less in urban locations (presumably with mostly business travelers carrying a roller bag and laptop) and slightly more in resorts (presumably with leisure travelers with large bags).
- In contrast, auto check in is among the most over predicted amenity with less than 2% of all guests actually using this amenity. Investing in a cluttering hotel lobbies with multiple auto check in station may therefore be misplaced and investing in efficient and effective check in protocols may be more fruitful.
- While suburban resorts have the least utilization of lobby seating, they have maximum utilization of lobby food, hinting towards the popularity of grab and go trends from cafes in the hotel lobbies.
- The gift shop, bar, pool and spa have the maximum utilization in resorts as expected. On the other hand, business center utilization has been the maximum in resorts where up to



18% of the guests end up using the business center, compared to 11% and 10% in urban and suburban respectively. Our hypothesis is that while business travelers to urban hotel travel with their own ‘business center’ (laptops, even portable printers), resort guests are less likely to do so and so need the business center. Plus, from personal experience, we found resort business centers being used a lot by children.



**Exhibit 3: Amenity Use by Gender (Female) and Chain Scale**

**Female**

Amenity	Midscale			Upscale			Luxury		
	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference
<b>Valet Service</b>	0	0	0%	0.04	0.07	-75%	0.06	0.11	-83%
<b>Early check in</b>	0.09	0.05	44%	0.12	0.1	17%	0.17	0.09	47%
<b>Auto check in</b>	0.03	0.01	67%	0.03	0.01	67%	0.04	0	100%
<b>Bell desk</b>	0.01	0	100%	0.06	0.08	-33%	0.09	0.12	-33%
<b>Lobby seating</b>	0.07	0.03	57%	0.1	0.14	-40%	0.12	0.16	-33%
<b>Lobby internet</b>	0.13	0.07	46%	0.12	0.07	42%	0.13	0.08	38%

<b>Lobby food</b>	0.12	0.11	8%	0.09	0.1	-11%	0.09	0.08	11%
<b>Concierge</b>	0.01	0.04	-300%	0.09	0.14	-56%	0.15	0.18	-20%
<b>Business Center</b>	0.04	0.01	75%	0.04	0.05	-25%	0.06	0.04	33%
<b>Laundry</b>	0.03	0	100%	0.01	0.01	0%	0.02	0.01	50%
<b>Wakeup call</b>	0.16	0.11	31%	0.12	0.08	33%	0.14	0.08	43%
<b>Gift Shop</b>	0.07	0.03	57%	0.11	0.10	9%	0.12	0.06	50%
<b>Restaurant breakfast</b>	0.13	0.07	46%	0.14	0.09	36%	0.15	0.09	40%
<b>IRD Breakfast</b>	0.05	0.01	80%	0.09	0.03	67%	0.13	0.07	46%
<b>Restaurant Lunch</b>	0.05	0	100%	0.1	0.05	50%	0.09	0.06	33%
<b>IRD Lunch</b>	0.04	0	100%	0.04	0.01	75%	0.05	0.01	80%
<b>Restaurant dinner</b>	0.11	0.03	73%	0.14	0.08	43%	0.16	0.09	44%
<b>IRD Dinner</b>	0.04	0.01	75%	0.08	0.04	50%	0.09	0.06	33%
<b>IRD Midnight snacks</b>	0.04	0.01	75%	0.07	0.01	86%	0.1	0.03	70%
<b>Bar</b>	0.08	0.11	-38%	0.14	0.1	29%	0.23	0.2	13%
<b>Minibar</b>	0	0		0.03	0.03	0%	0.09	0.04	56%
<b>Fridge</b>	0.17	0.08	53%	0.19	0.12	37%	0.22	0.16	27%
<b>Mineral Water</b>	0.19	0.21	-11%	0.17	0.11	35%	0.2	0.18	10%
<b>Coffee maker</b>	0.2	0.19	5%	0.22	0.18	18%	0.19	0.07	63%
<b>Room Internet</b>	0.21	0.17	19%	0.21	0.1	52%	0.2	0.11	45%
<b>TV</b>	0.32	0.29	9%	0.3	0.27	10%	0.31	0.28	10%
<b>Radio</b>	0.17	0.09	47%	0.13	0.05	62%	0.17	0.09	47%
<b>MP3</b>	0.13	0.03	77%	0.11	0.03	73%	0.17	0.08	53%
<b>Alarm</b>	0.24	0.16	33%	0.23	0.12	48%	0.23	0.11	52%
<b>Room desk</b>	0.25	0.19	24%	0.27	0.22	19%	0.27	0.24	11%
<b>Room light</b>	0.32	0.21	34%	0.27	0.25	7%	0.28	0.24	14%
<b>Phone in</b>	0.16	0.09	44%	0.13	0.12	8%	0.15	0.16	-7%
<b>Phone out</b>	0.11	0.03	73%	0.08	0.04	50%	0.1	0.05	50%
<b>Movie on Demand</b>	0.08	0	100%	0.05	0.02	60%	0.08	0.04	50%
<b>Hair Dryer</b>	0.24	0.15	38%	0.26	0.25	4%	0.27	0.26	4%

<b>Iron &amp; Ironing board</b>	0.16	0.05	69%	0.21	0.15	29%	0.21	0.13	38%
<b>Closet</b>	0.31	0.15	52%	0.31	0.3	3%	0.32	0.29	9%
<b>Packaged soap</b>	0.28	0.27	4%	0.27	0.28	-4%	0.29	0.29	0%
<b>Dispensing soap</b>	0.16	0.13	19%	0.13	0.06	54%	0.12	0.1	17%
<b>Bath robe</b>	0.11	0.01	91%	0.13	0.06	54%	0.22	0.21	5%
<b>Safe</b>	0.2	0.05	75%	0.21	0.14	33%	0.26	0.18	31%
<b>Pool</b>	0.19	0.04	79%	0.12	0.09	25%	0.18	0.1	44%
<b>Spa</b>	0	0	0%	0.05	0.02	60%	0.11	0.06	45%
<b>In room fitness equipment</b>	0.05	0	100%	0.05	0	100%	0.06	0	100%
<b>Fitness Center</b>	0.15	0.07	53%	0.13	0.04	69%	0.18	0.07	61%
<b>Express checkout</b>	0.19	0.12	37%	0.16	0.11	31%	0.17	0.09	47%
<b>Late checkout</b>	0.15	0.04	73%	0.12	0.07	42%	0.16	0.09	44%
<b>Folio under door</b>	0.17	0.21	-24%	0.21	0.24	-14%	0.20	0.19	5%
<b>Boarding pass Printing</b>	0.17	0.07	59%	0.17	0.1	41%	0.19	0.1	47%

In order to develop a deeper understanding of actual and expected use, we further analyzed our data to examine use of amenities based on gender and the chain scale of the hotel. Because many hotel owners have a portfolio mix of midscale, upscale and luxury properties, here we analyze intent and behavior across these three different property types. Here are the insights from an examination of amenity use by gender (female) and chain scale:

- Concierge service is the only amenity that is under predicted across all chain scales with the maximum under prediction at the midscale level and the maximum usage at the luxury level. Predictably, concierge service use increases in luxury hotels as compared to midscale hotels.
- Gift shop use is over predicted across all hotels. However, in upscale hotels, almost as many female guests used the amenity as expected to do so. What this could tell us is that, for midscale and luxury hotels, while female guests anticipated using the gift shop, they ultimately did not use it nearly as much as they expected to do so perhaps because of the type and quality of merchandise offered.
- When it comes to the coffee maker, we see that 19% of the female guests in midscale hotels use it. The usage drops marginally to 18% in midscale, but to only 7% in luxury. The trend to place high end coffee makers in luxury hotel rooms could change this usage level where guests make their own espressos, cappuccinos and lattes, instead of room

service where, in most luxury hotels, the only way to get a cup of specialty coffee is to order one.

- It is interesting to observe that among the female guests who participated in this survey, almost none of them used the in-room fitness equipment, although 4 to 7 percent of these guests did use the fitness center in the hotel. This could mean that female guests prefer working out in a community setting in the common fitness center at the hotel with a complete set of equipment rather than having their personalized limited fitness equipment in the room. A similar trend can be seen among the male guests as well as per the data shared in the forthcoming part of this report.



**Exhibit 4: Amenity Use by Gender (Male) and Chain Scale**

**Male**

	Midscale			Upscale			Luxury		
	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference
<b>Valet Service</b>	0.02	0	100%	0.03	0.07	-133%	0.08	0.13	-63%
<b>Early check in</b>	0.19	0.13	32%	0.11	0.09	18%	0.11	0.08	27%
<b>Auto check in</b>	0.07	0	100%	0.03	0	100%	0.04	0	100%
<b>Bell desk</b>	0.04	0	100%	0.04	0.08	-100%	0.08	0.13	-63%

<b>Lobby seating</b>	0.09	0.11	-22%	0.07	0.13	-86%	0.09	0.17	-89%
<b>Lobby internet</b>	0.15	0.09	40%	0.12	0.08	33%	0.09	0.08	11%
<b>Lobby food</b>	0.17	0.17	0%	0.08	0.09	-13%	0.1	0.08	20%
<b>Concierge</b>	0.04	0	100%	0.09	0.13	-44%	0.12	0.17	-42%
<b>Business Center</b>	0.02	0	100%	0.05	0.04	20%	0.03	0.07	-133%
<b>Laundry</b>	0	0	0%	0.02	0.01	50%	0.02	0.02	0%
<b>Wakeup call</b>	0.11	0.04	64%	0.14	0.08	43%	0.11	0.09	18%
<b>Gift Shop</b>	0.06	0.04	33%	0.08	0.10	-25%	0.09	0.05	44%
<b>Restaurant breakfast</b>	0.19	0.13	32%	0.17	0.13	24%	0.16	0.12	25%
<b>IRD Breakfast</b>	0.02	0.02	0%	0.05	0.03	40%	0.1	0.09	10%
<b>Restaurant Lunch</b>	0.04	0	100%	0.08	0.07	13%	0.09	0.06	33%
<b>IRD Lunch</b>	0	0	0%	0.02	0.01	50%	0.03	0.01	67%
<b>Restaurant dinner</b>	0.09	0.04	56%	0.15	0.09	40%	0.14	0.12	14%
<b>IRD Dinner</b>	0.04	0	100%	0.05	0.02	60%	0.05	0.02	60%
<b>IRD Midnight snacks</b>	0.09	0.02	78%	0.06	0.01	83%	0.08	0.05	38%
<b>Bar</b>	0.15	0.13	13%	0.16	0.14	13%	0.21	0.18	14%
<b>Minibar</b>	0.04	0	100%	0.02	0.02	0%	0.05	0.05	0%
<b>Fridge</b>	0.17	0.15	12%	0.15	0.1	33%	0.15	0.13	13%
<b>Mineral Water</b>	0.15	0.24	-60%	0.13	0.11	15%	0.21	0.19	10%
<b>Coffee maker</b>	0.17	0.20	-18%	0.17	0.16	6%	0.19	0.09	53%
<b>Room Internet</b>	0.28	0.17	39%	0.25	0.15	40%	0.22	0.17	23%
<b>TV</b>	0.30	0.26	13%	0.3	0.29	3%	0.31	0.29	6%
<b>Radio</b>	0.09	0.04	56%	0.11	0.06	45%	0.12	0.07	42%
<b>MP3</b>	0.13	0.04	69%	0.09	0.03	67%	0.14	0.11	21%
<b>Alarm</b>	0.17	0.09	47%	0.21	0.12	43%	0.17	0.10	41%
<b>Room desk</b>	0.22	0.19	14%	0.29	0.26	10%	0.24	0.25	-4%



<b>Room light</b>	0.26	0.24	8%	0.26	0.23	12%	0.22	0.23	-5%
<b>Phone in</b>	0.06	0.07	-17%	0.1	0.09	10%	0.11	0.14	-27%
<b>Phone out</b>	0.04	0.06	-50%	0.08	0.05	38%	0.07	0.05	29%
<b>Movie on Demand</b>	0.04	0.02	50%	0.05	0.02	60%	0.07	0.02	71%
<b>Video games</b>	0.02	0	100%	0	0	0%	0.01	0	100%
<b>Hair Dryer</b>	0.19	0.17	11%	0.17	0.16	6%	0.17	0.16	6%
<b>Iron &amp; Ironing board</b>	0.17	0.15	12%	0.16	0.15	6%	0.17	0.14	18%
<b>Closet</b>	0.26	0.26	0%	0.3	0.29	3%	0.30	0.29	3%
<b>Packaged soap</b>	0.31	0.26	16%	0.28	0.29	-4%	0.28	0.28	0%
<b>Dispensing soap</b>	0.24	0.19	21%	0.15	0.08	47%	0.15	0.07	53%
<b>Bath robe</b>	0.09	0.02	78%	0.11	0.05	55%	0.17	0.14	18%
<b>Safe</b>	0.13	0.09	31%	0.17	0.14	18%	0.25	0.21	16%
<b>Pool</b>	0.15	0.11	27%	0.11	0.08	27%	0.18	0.13	28%
<b>Spa</b>	0	0		0.05	0.02	60%	0.09	0.05	44%
<b>In room fitness equipment</b>	0.02	0	100%	0.04	0.01	75%	0.03	0.01	67%
<b>Fitness Center</b>	0.2	0.07	65%	0.15	0.07	53%	0.19	0.11	42%
<b>Express checkout</b>	0.15	0.09	40%	0.17	0.12	29%	0.14	0.04	71%
<b>Late checkout</b>	0.13	0.07	46%	0.11	0.07	36%	0.2	0.13	35%
<b>Folio under door</b>	0.19	0.19	0%	0.2	0.24	-20%	0.22	0.15	32%
<b>Boarding pass Printing</b>	0.15	0.04	73%	0.18	0.1	44%	0.14	0.07	50%

Another remarkable finding from studying the usage pattern of the above amenities for male guests was observed in the business center. While the use of a business center was overpredicted in the midscale and the upscale segment, it was considerably underpredicted in the luxury segment by male guests. Only 3% guests expected to use the business center but more than double of that used it during their stay. This may be a clear signal for luxury brands which are focused on attracting male business travelers to invest in a cutting-edge technology equipped business center which would could promote their repeat guest business.

Lobby seating was underpredicted across all chain scales and to a much greater extent among upscale and luxury hotels, with an underprediction of over 80%. As the concept of co-working become more and more popular, we believe that this trend of working in a social environment will only increase in the coming years. Hotel lobbies, which were once seen merely as ‘in transit’ non-revenue generating areas can now be seen as co-working spaces allowing guests to network with other guests of the hotel.

As observed in the data for female guests, in room fitness equipment does get much attention from the male counterparts as well. Only 1% of the male guests used in room fitness equipment but 7-11% guests used the hotel fitness center, which again point towards the preference for a social atmosphere adopted by the guests.

#### Exhibit 5a: Amenity use by travel purpose and chain scale (Midsale)

##### Midscale

	Business			Leisure		
	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference
<b>Valet Service</b>	0	0	0%	0.01	0	100%
<b>Early check in</b>	0.1	0	100%	0.15	0.1	33%
<b>Auto check in</b>	0.05	0.05	0%	0.04	0	100%
<b>Bell desk</b>	0.05	0	100%	0.01	0	100%
<b>Lobby seating</b>	0.14	0.05	64%	0.05	0.06	-20%

<b>Lobby internet</b>	0.14	0.1	29%	0.14	0.06	57%
<b>Lobby food</b>	0.24	0.14	42%	0.11	0.11	0%
<b>Concierge</b>	0.05	0	100%	0.02	0.02	0%
<b>Business Center</b>	0.05	0.05	0%	0.03	0	100%
<b>Laundry</b>	0.05	0	100%	0.01	0	100%
<b>Wakeup call</b>	0.14	0.1	29%	0.11	0.06	45%
<b>Gift Shop</b>	0.1	0.1	0%	0.04	0.02	50%
<b>Restaurant breakfast</b>	0.24	0.1	58%	0.14	0.09	36%
<b>IRD Breakfast</b>	0.1	0	100%	0.02	0.02	0%
<b>Restaurant Lunch</b>	0.1	0	100%	0.03	0	100%
<b>IRD Lunch</b>	0.1	0	100%	0.01	0	100%
<b>Restaurant dinner</b>	0.19	0.05	74%	0.06	0.02	67%
<b>IRD Dinner</b>	0.1	0	100%	0.02	0	100%
<b>IRD Midnight snacks</b>	0.1	0	100%	0.06	0.02	67%
<b>Bar</b>	0.05	0.19	-280%	0.13	0.11	15%
<b>Minibar</b>	0	0	0%	0.02	0	100%
<b>Fridge</b>	0.14	0.14	0%	0.19	0.11	42%
<b>Mineral Water</b>	0.24	0.14	42%	0.18	0.25	-39%
<b>Coffee maker</b>	0.19	0.14	26%	0.2	0.22	-10%
<b>Room Internet</b>	0.33	0.24	27%	0.23	0.15	35%
<b>TV</b>	0.33	0.33	0%	0.3	0.27	10%
<b>Radio</b>	0.1	0	100%	0.14	0.08	43%
<b>MP3</b>	0.1	0.1	0%	0.13	0.13	0%
<b>Alarm</b>	0.14	0	100%	0.2	0.04	80%
<b>Room desk</b>	0.33	0.14	58%	0.2	0.17	15%
<b>Room light</b>	0.29	0.29	0%	0.29	0.19	34%
<b>Phone in</b>	0.1	0	100%	0.12	0.09	25%
<b>Phone out</b>	0.05	0	100%	0.08	0.04	50%
<b>Movie on Demand</b>	0.05	0.05	0%	0.05	0	100%
<b>Video games</b>	0.05	0	100%	0	0	0%
<b>Hair Dryer</b>	0.1	0.14	-40%	0.24	0.15	38%
<b>Iron &amp; Ironing board</b>	0.29	0.24	17%	0.13	0.06	54%
<b>Closet</b>	0.33	0.24	27%	0.28	0.18	36%
<b>Packaged soap</b>	0.33	0.33	0%	0.28	0.23	18%



<b>Dispensing soap</b>	0.14	0.19	-36%	0.19	0.15	21%
<b>Bath robe</b>	0.14	0.05	64%	0.08	0.01	88%
<b>Safe</b>	0.19	0.1	47%	0.17	0.06	65%
<b>Pool</b>	0.1	0.05	50%	0.18	0.08	56%
<b>In room fitness equipment</b>	0.1	0	100%	0.01	0	100%
<b>Fitness Center</b>	0.29	0.19	34%	0.14	0.05	64%
<b>Express checkout</b>	0.19	0.1	47%	0.16	0.11	31%
<b>Late checkout</b>	0.1	0	100%	0.15	0.08	47%
<b>Folio under door</b>	0.24	0.29	-21%	0.16	0.19	-19%
<b>Boarding pass Printing</b>	0.19	0.05	74%	0.13	0.05	62%

### Exhibit 5b: Amenity use by travel purpose and chain scale (Upscale)

#### Upscale

	Business			Leisure		
	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference
<b>Valet Service</b>	0.02	0.05	-150%	0.05	0.09	-80%
<b>Early check in</b>	0.08	0.08	0%	0.14	0.11	21%
<b>Auto check in</b>	0.03	0	100%	0.03	0.01	67%
<b>Bell desk</b>	0.03	0.05	-67%	0.07	0.11	-57%
<b>Lobby seating</b>	0.08	0.13	-63%	0.1	0.14	-40%
<b>Lobby internet</b>	0.12	0.08	33%	0.13	0.07	46%
<b>Lobby food</b>	0.08	0.09	-13%	0.1	0.10	0%
<b>Concierge</b>	0.06	0.1	-67%	0.12	0.16	-33%
<b>Business Center</b>	0.07	0.05	29%	0.03	0.04	-33%
<b>Laundry</b>	0.01	0	100%	0.02	0.01	50%
<b>Wakeup call</b>	0.14	0.09	36%	0.11	0.06	45%
<b>Gift Shop</b>	0.08	0.08	0%	0.11	0.11	0%
<b>Restaurant breakfast</b>	0.14	0.09	36%	0.17	0.11	35%
<b>IRD Breakfast</b>	0.05	0.03	40%	0.08	0.03	63%
<b>Restaurant Lunch</b>	0.08	0.06	25%	0.1	0.05	50%
<b>IRD Lunch</b>	0.02	0.01	50%	0.05	0.01	80%
<b>Restaurant dinner</b>	0.13	0.08	38%	0.15	0.08	47%

<b>IRD Dinner</b>	0.07	0.04	43%	0.07	0.02	71%
<b>IRD Midnight snacks</b>	0.05	0.01	80%	0.09	0.02	78%
<b>Bar</b>	0.12	0.09	25%	0.18	0.15	17%
<b>Minibar</b>	0.02	0.02	0%	0.03	0.02	33%
<b>Fridge</b>	0.13	0.07	46%	0.19	0.14	26%
<b>Mineral Water</b>	0.13	0.09	31%	0.17	0.13	24%
<b>Coffee maker</b>	0.17	0.15	12%	0.21	0.18	14%
<b>Room Internet</b>	0.26	0.17	35%	0.2	0.09	55%
<b>TV</b>	0.3	0.29	3%	0.3	0.29	3%
<b>Radio</b>	0.11	0.05	55%	0.13	0.07	46%
<b>MP3</b>	0.08	0.13	-63%	0.11	0.11	0%
<b>Alarm</b>	0.23	0.02	91%	0.21	0.04	81%
<b>Room desk</b>	0.3	0.26	13%	0.25	0.21	16%
<b>Room light</b>	0.26	0.25	4%	0.26	0.22	15%
<b>Phone in</b>	0.11	0.09	18%	0.11	0.12	-9%
<b>Phone out</b>	0.07	0.05	29%	0.09	0.05	44%
<b>Movie on Demand</b>	0.04	0.01	75%	0.07	0.04	43%
<b>Video games</b>	0	0	0%	0.01	0	100%
<b>Hair Dryer</b>	0.17	0.16	6%	0.25	0.23	8%
<b>Iron &amp; Ironing board</b>	0.18	0.14	22%	0.19	0.15	21%
<b>Closet</b>	0.3	0.29	3%	0.31	0.29	6%
<b>Packaged soap</b>	0.26	0.28	-8%	0.28	0.3	-7%
<b>Dispensing soap</b>	0.13	0.05	62%	0.14	0.08	43%
<b>Bath robe</b>	0.1	0.04	60%	0.14	0.07	50%
<b>Safe</b>	0.16	0.11	31%	0.22	0.17	23%
<b>Pool</b>	0.07	0.02	71%	0.15	0.13	13%
<b>Spa</b>	0.03	0	100%	0.07	0.03	57%
<b>In room fitness equipment</b>	0.06	0.01	83%	0.04	0	100%
<b>Fitness Center</b>	0.15	0.05	67%	0.14	0.06	57%
<b>Express checkout</b>	0.17	0.12	29%	0.15	0.10	33%
<b>Late checkout</b>	0.12	0.08	33%	0.13	0.07	46%
<b>Folio under door</b>	0.2	0.26	-30%	0.21	0.22	-5%
<b>Boarding pass Printing</b>	0.2	0.11	45%	0.15	0.09	40%

**Exhibit 5c: Amenity use by travel purpose and chain scale (Luxury)**

## Luxury

	Business			Leisure		
	Expected	Actual	Percentage Difference	Expected	Actual	Percentage Difference
Valet Service	0.05	0.09	-80%	0.08	0.13	-63%
Early check in	0.06	0.03	50%	0.16	0.1	38%
Auto check in	0.04	0	100%	0.04	0	100%
Bell desk	0.06	0.06	0%	0.09	0.13	-44%
Lobby seating	0.11	0.18	-64%	0.11	0.15	-36%
Lobby internet	0.09	0.08	11%	0.12	0.08	33%
Lobby food	0.10	0.10	0%	0.09	0.07	22%
Concierge	0.08	0.10	-25%	0.14	0.19	-36%
Business Center	0.06	0.05	17%	0.03	0.06	-100%
Laundry	0.01	0.01	0%	0.02	0.01	50%
Wakeup call	0.12	0.1	17%	0.11	0.06	45%
Gift Shop	0.07	0.02	71%	0.11	0.06	45%
Restaurant breakfast	0.18	0.08	56%	0.13	0.10	23%
IRD Breakfast	0.10	0.05	50%	0.10	0.08	20%
Restaurant Lunch	0.04	0.04	0%	0.08	0.06	25%
IRD Lunch	0.02	0.01	50%	0.04	0.01	75%
Restaurant dinner	0.15	0.07	53%	0.14	0.1	29%
IRD Dinner	0.06	0.04	33%	0.06	0.03	50%
IRD Midnight snacks	0.07	0.03	57%	0.09	0.04	56%
Bar	0.17	0.13	24%	0.23	0.2	13%
Minibar	0.06	0.02	67%	0.07	0.05	29%
Fridge	0.19	0.08	58%	0.19	0.16	16%
Mineral Water	0.19	0.15	21%	0.19	0.18	5%
Coffee maker	0.19	0.02	89%	0.19	0.09	53%
Room Internet	0.26	0.18	31%	0.19	0.12	37%
TV	0.31	0.26	16%	0.3	0.29	3%
Radio	0.14	0.09	36%	0.15	0.07	53%
MP3	0.13	0.13	0%	0.16	0.09	44%
Alarm	0.2	0.1	50%	0.19	0.09	53%
Room desk	0.3	0.29	3%	0.23	0.22	4%
Room light	0.28	0.28	0%	0.23	0.22	4%

<b>Phone in</b>	0.13	0.15	-15%	0.13	0.14	-8%
<b>Phone out</b>	0.07	0.06	14%	0.08	0.05	38%
<b>Movie on Demand</b>	0.07	0.03	57%	0.06	0.02	67%
<b>Video games</b>	0	0		0.01	0	100%
<b>Hair Dryer</b>	0.15	0.12	20%	0.25	0.24	4%
<b>Iron &amp; Ironing board</b>	0.2	0.15	25%	0.19	0.13	32%
<b>Closet</b>	0.33	0.3	9%	0.3	0.29	3%
<b>Packaged soap</b>	0.28	0.27	4%	0.27	0.29	-7%
<b>Dispensing soap</b>	0.12	0.08	33%	0.14	0.08	43%
<b>Bath robe</b>	0.21	0.15	29%	0.19	0.19	0%
<b>Safe</b>	0.26	0.14	46%	0.25	0.2	20%
<b>Pool</b>	0.10	0	100%	0.19	0.14	26%
<b>Spa</b>	0.04	0.04	0%	0.11	0.05	55%
<b>In room fitness equipment</b>	0.07	0.01	86%	0.04	0	100%
<b>Fitness Center</b>	0.21	0.08	62%	0.17	0.08	53%
<b>Express checkout</b>	0.19	0.06	68%	0.15	0.06	60%
<b>Late checkout</b>	0.15	0.04	73%	0.18	0.12	33%
<b>Folio under door</b>	0.29	0.19	34%	0.2	0.16	20%
<b>Boarding pass Printing</b>	0.20	0.07	65%	0.16	0.08	50%

Disaggregating the data by chain scale type and purpose of stay revealed a few insights on technology use, that sometimes is overrated. For instance, the auto check in facility in luxury hotels was barely used by business or leisure travelers in luxury and midscale hotels. The express checkout facility was used by around 6% of the guests in the luxury segment but was expected to be used by 19% of business guests and 15% of leisure guests. In the case of upscale properties, the actual usage of express checkout service was reduced to almost 12% for business guests and to 10% for leisure guests. These findings make us rethink the willingness of travelers to adapt to innovations of technology which makes them drift from the conventional norms and replaces the element of human interaction with the guests. As seen from this data, majority of hotel guests are still adapting to these automated systems, it may be a while before technology can replace the human element of hotel services completely, if ever. We saw a similar trend in the hotel reservation processes, which took almost a decade to move from a human-assisted process to an almost completely digitized one.

Examining some other amenities, we observe that the bell desk usage is much higher among the leisure guests across all chain scales, as leisure travelers tend to travel with more luggage and probably need this assistance. Around 13% of leisure guests used the bell desk services in luxury hotels and almost 11% in upscale hotels.

Lobby seating remains an underpredicted amenity in every chain scale. Almost 18 % luxury business travelers actually used the lobby seating, and almost 15% of leisure guests used lobby seating in upscale and luxury hotels. As discussed earlier in this report, we believe that this trend may rise in the future as guests actively seek out social interactions with other hotel guests and as more hotel make the lobby a more functional and social space. Most guests who used lobby seating used lobby food with usage varying from 7% to 14%, with the highest being at the midscale level by business guests.

Another amenity which was overpredicted among all chain scales was late check out. In luxury hotels, while 15% of business guests expected to use a late check out facility, only 4% actually did so, either because they did not need it or it was not offered. In comparison, 18% of leisure guests expected to use a late check out and 12% actually used it, again because they wanted to spend more time in the destination and/or were able to secure it. One possible insight here is that late check out could affect a buying decision of more than 15% travelers while shopping for hotel rooms, something we intuitively knew but now can put a number on it.

## **Summary and Conclusions**

As with any study, we caution the reader to use these results with caution. One limitation of our data is that some of the amenities have been significantly enhanced since we conducted our survey. For example, even though more than 80% of the guests overpredict auto check in or mobile check in services, in our study it is used by 2% guests in suburban locations and even lesser in urban and resort. Today, many more hotel brands are now offering keyless entries[\[5\]](#). However, it certainly has a long way to go before auto check in becomes the norm. Moreover, as seen from our previous studies, technology related amenities are one of the most overpredicted amenities[\[6\]](#) which may suggest that even though travelers are willing to accept new technology in hotels, it may take time for travelers to completely adapt to newer ways of service delivery.

Other key learnings from this study reveal the growing popularity of common spaces in the hotels such as the lobby and a considerable usage of the concierge service as guests are looking for personal recommendations and customized services. The in-room television still remains of highest used amenity by guests in all types of hotels, thus offering an opportunity for marketers to promote targeted content and for hotel managers to add value through a highly customized and personalized offering. Hilton's recent announcement offering Netflix in the rooms is one such enhancement of this amenity.[\[7\]](#)

Hotel amenities, which can make or break a guest's hotel stay, and which cost hotel owners a lot of money to install and deliver, are continuously evolving. Offering the right amenities to the right guest, in the right location, for the right trip purpose, in the right type of hotel, for the right length of stay, continues to be a puzzle owners and operators are continually trying to solve. We expect that the results of our study will help hotel owners, asset managers, brand managers, operators, designers and consultants make optimal decisions regarding what amenities to offer, when and to whom.



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## End Notes

- [1] Chekitan S. Dev is Professor of Marketing at Cornell University's School of Hotel Administration in the SC Johnson College of Business where Prateek Kumar is a candidate for the Master of Management in Hospitality (MMH) degree.
- [2] Hamilton, Rebecca W., Roland T. Rust, Michel Wedel and Chekitan S. Dev (2017), "Return on Service Amenities," Journal of Marketing Research, 54(1), 96-110. Dev, Chekitan S., Rebecca W. Hamilton and Roland T. Rust (2017), "Hotel Brand Standards: How to Pick the Right Amenities for your Property," Cornell Hospitality Report, 17(3), 3-7.
- [3] Hamilton, Rebecca W., Roland T. Rust and Chekitan S. Dev (2017), "Which Features Increase Customer Retention?" MIT Sloan Management Review, 58(2), 79-84.
- [4] Dev, Chekitan S., Rebecca W. Hamilton, Roland T. Rust and Matthew Valenti (2018), "What Do Hotel Guests *Really* Want? Anticipated Versus Actual Use of Amenities," Cornell Hospitality Report, 18(8), 1-24.
- [5] <https://skift.com/2016/06/29/the-current-state-of-keyless-entry-at-big-hotel-brands/>
- [6] Dev, Hamilton, Rust and Valenti 2018
- [7] <https://variety.com/2019/digital/news/netflix-pacts-with-hilton-on-hotel-in-room-streaming-but-only-for-small-fraction-of-rooms-1203116640/>