Serving More Segments and Offering More Products: What Are the Costs and Where Are the Profits?

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Abstract
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Keywords
hotel industry, financial performance, customer segments, services

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Serving More Segments and Offering More Products

What Are the Costs and Where Are the Profits?

Making more money involves more than targeting new customer segments and offering new services.

by Cathy A. Enz, Gordon Potter, and Judy A. Siguaw

T o improve their financial performance, hotel companies often target multiple customer segments by expanding their hotels’ product features and services. The logic underlying this strategy is that revenue maximization requires attracting more guests, which is accomplished relatively easily by targeting new customer segments by offering a wide variety of products and services. Consequently, although hotel operators have routinely differentiated their product on the

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basis of location, architecture, brand image, service quality, price, and distribution technologies, products once viewed as peripheral or exceptional are now viewed as integral to the mix. For example, guest-room basics now include dataports, extra outlets and phone lines, a work area, coffee makers, VCRs and movie rentals, video games, and voice mail.1

Such expansions in products and guest services are motivated in large part by a desire to serve additional customer segments as a means of maximizing revenue and, to a lesser degree, as a way to manage capacity. Hotel companies, then, can contemplate the following two strategies to entice more customers to stay and return to their properties: add more products or target more guest segments. Our research shows that those are not equivalent approaches, as we explain below.

A profit-enhancing strategy for hotel operations must begin by examining both customer variety and the product-and-service mix of a particular hotel. Looking at the roster of products offered and the customers served in combination with historical information on profits and losses can help a manager understand more fully the connections among customers, products and services, revenues, costs, and profits. The purpose of our research reported here was to examine those issues and give hospitality managers an understanding of what to consider as they contemplate the appropriate level of variety in their customer mix and product-and-service mix.

One possible model of the effect on profits of increases in customer variety and product-and-service mix is that a property’s revenue should increase when more customer segments are served because there is a larger demand base. Thus, increasing a hotel’s products and services to attract a variety of customer groups should help a hotel maintain a high occupancy rate, and that greater demand should result in higher daily rates. Moreover, a good match between services offered by the hotel and those desired by guests should result in the guests being willing to (1) pay higher prices and (2) return to that hotel on future trips. That combination of increases in price and market share should result in increased departmental profits (hotel revenues minus departmental expenses). The relationships among customer variety, product mix, costs, and profitability are empirically examined in a study two of us recently completed of a North American full-service hotel chain.2

Understanding Costs
Not surprisingly, offering a wide array of products and services to a large number of customer segments is likely to result in an increase in a property’s support costs. Costs escalate because the complexity of operations increases as the availability of products and services expands. A property’s overhead costs, often referred to as undistributed operating expenses, are likely to increase with both customer and product-service variety. Put another way, hotels that focus on one or two well-defined customer segments, and thus maintain a narrow product mix as well, are likely to have lower support costs than those hotels that offer many products to a diverse guest population. With a narrow product-service mix all of the equipment, support staff, and procedures are dedicated to a focused set of tasks. Those properties competing for many different customer segments, on the other hand, must adjust their offerings to meet the needs of each of those segments.3 Those operators are likely to consume more resources than does a narrow-focus operator because of the need to use different marketing channels and the need for additional support staff to provide the numerous product offerings required to attract a wide variety of customer segments.

Moreover, with many product offerings comes the potential for more service-delivery and processing errors that result in spiraling costs and dissatisfied guests. Increasing products and services usually means using greater materials-handling resources, employing more supervision, and generating a larger number of quality problems—in other words, an upward pressure on costs. The reasoning noted above suggests that product variety will lead to an increase in complexity, which in turn leads to higher costs.4 For example, in the airline industry support costs have been found to increase with the complexity of operations as measured by the different products offered.5

1 The 1998 Lodging Survey reported that the percentage of hotels with voice mail in their guest rooms rose from 4 percent in 1990 to 52 percent in 1998. See: 1998 Lodging Survey (Ithaca, NY: Realtime Hotel Reports, 1999), which was prepared for the American Hotel and Motel Association.


4 Cost-driver analysis has been applied in manufacturing settings to obtain insights into the types of operating strategy that influence costs. Using the variables “number of products” or “product lines,” many researchers could not find evidence to support the hypothesis that product variety affects operating-cost efficiency. A few researchers, however, did find that heterogeneity reduces manufacturing performance. For example, see: J.P. Macduffie, K. Sethuraman, and M.L. Fisher, “Product Variety and Manufacturing Performance: Evidence From the International Automotive Assembly Plant Study,” Management Science, March 1996, pp. 350–369; and S. Anderson, “Measuring the Impact of Product Mix Heterogeneity on Manufacturing Overhead Cost,” The Accounting Review, July 1995, pp. 363–388.
types of aircraft used and routes flown by the carrier. Conversely, a product–service mix that is focused on a single, well-defined target market helps keep complexity to a minimum, keeps costs low, and increases customer satisfaction. For example, it is well known that Southwest Airline’s extremely successful low-cost strategy results from standardized operations and equipment (the firm uses only 737s) and no-frills flying. Similarly, in the hotel business, rather than employ the traditional strategy of multiple food and beverage venues with varying degrees of service and quality, Four Seasons uses only one food and beverage outlet within the majority of its hotels. Instead of numerous restaurants, the one outlet offers “broader cuisine choices” that were desired by the hotel chain’s target market. According to Alfons Konrad, Four Seasons’ senior vice president of food and beverage, this dining strategy yields lower labor costs and has produced restaurant-capture rates of around 80 percent of hotel guests.

Seeking a balance. In the hotel industry, undistributed operating costs are incurred by providing services for guests and support to revenue departments. As previously noted, more support personnel are needed to coordinate activities and correct errors when the variety of products and customer segments increases. The result could be a disproportionate increase in costs. For instance, consider the varying demands of a property’s customer mix at its widest point: trying to serve both leisure guests and business travelers. Each of those broad segments must be further divided to accurately determine individual customer needs. For example, the leisure market may consist of seniors, retired couples, families with children, lone travelers, college students, and middle-age couples without children—all with different price sensitivities and seeking different hotel services to satisfy their specific needs. The business segment may comprise top executives, middle managers, and traveling sales representatives. Again, those groups represent different income levels and are characterized by different lodging needs that must be fulfilled by the hotel. Consequently, hotel support services must be available to satisfy each and every customer group the operator chooses to target. Furthermore, effectively targeting each selected customer segment is likely to require the development of different marketing messages, the use of multiple marketing channels and advertising outlets, and the employment of additional marketing personnel and resources. Additional errors are likely to occur if the property uses different billing rates, amenities, and rooms for its various customer groups yet seeks to standardize housekeeping and front-desk activities.

With respect to the product-and-service mix, a hotel’s rooms, food and beverage, gift shop, and other departments also consume different resources or the same resources in varying proportions depending on the customer mix. The rooms department requires administrative resources for staffing, payroll and training, security, maintenance, and housekeeping. Food and beverage outlets, as well as the gift shop, spend heavily on purchasing, regulatory compliance, and disbursing services. Such variable department-to-department demands for resources and expertise result in additional layers of management. Moreover, the variety of marketing and purchasing channels may require specialized employees. Based on those arguments it is expected that undistributed operating expenses will increase as a property’s customer mix and its product-and-service mix expands.

The Impact of Variety on Revenues and Profits

The objective of many hotels is to capture more than their fair share of a market, given that an increase in market share is positively related to profitability. Product–differentiation strategies based on location and accessibility, quality, price, and image can be used to build market share. Another approach is to broaden a firm’s product offerings to more completely fulfill a customer’s needs. Such a strategy of differentiation via high levels of congruency between customer needs and hotel product-and-service offerings enables those operators to charge somewhat higher prices.8

In a competitive environment, improvements in profitability are tied to the ability to increase revenues without losing current customers or eroding the existing potential customer base. For example, the Peninsula Beverly Hills Hotel was recently identified as a best-practice champion for its 24-hour check-in system with no surcharge.9 This practice

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astonishes the guests and, according to general manager Ali Kasikci, has yielded customer loyalty and repeat business.

Such success stories show that hotels can attract additional business and increase room rates, and thus augment revenue, by providing more value-added services such as streamlined or flexible check-in (and check-out) procedures, airline discounts, free long-distance calls, frequent-traveler programs, in-room faxes, dataports, and business centers. It is therefore expected that revenues and profitability will increase with additions in both a hotel's customer and product-service mix. Those added services and market segments do, however, come at a cost.

The tension between enhancing revenue by increasing the variety of products and customer segments and the need to control costs by decreasing products and customer segments is a fundamental strategic issue for management. The manager of a business hotel, for example, worries about vacancies on the weekend. Although the manager may choose to focus on a few products or services to control costs, the desire to “put heads in beds” often leads the manager to instead provide additional products and services to attract and retain a variety of different types of customers. That is, hotels are willing to expand their product and service offerings in the belief that the variety will attract new customer segments while providing all customers with enhanced value. In turn the hotel can charge higher prices and increase market share, and thereby ultimately return higher profits, as noted earlier. The question for the operator is how to balance the tradeoffs in offering more products and services to a broad customer base to enhance revenue with the need to control costs for operating efficiency.

Assessing Tradeoffs between Enhanced Revenue and Cost Controls

To investigate the effect of product-and-service mix and customer variety on costs, revenues, and profit, we gathered annual data from over 40 full-service hotels managed or owned by a major chain. Collecting those records from one chain helped us to ensure that the financial data were comparable and property-level differences were not due to different corporate strategies or brand initiatives. Detailed revenue, expense, and customer-mix data were taken from the financial ledgers maintained at the chain's headquarters by corporate accounting staff members. The revenue and expense information was provided using the Uniform System of Accounts for Hotels (Eighth Edition). In addition, nonfinancial information concerning the individual hotel properties as well as cost-of-living data and economic prospects for each hotel's neighborhood were collected.

Measuring Variety: The Level of Mix

We used the Herfindahl Index to measure customer variety and product-and-service mix (Exhibit 1), a tool widely used in industrial economics. To measure the degree of variety in the customer-and-product mix, we measured two factors: the number of customer segments and the number of products and services offered.

**Exhibit 1**

**Measuring product-and-service mix and customer variety**

The Herfindahl Index (HI) measures the extent of concentration. An inverted index is a measure of variety. Assume that a hotel's customer mix (CUSTVAR) includes corporate travelers (CT), leisure travelers (LT), and other travelers (OT). In this instance, customer variety will be measured as follows:

\[ \text{CUSTVAR} = 1 + \text{HI} \]

Where:

\[ \text{HI} = \text{Herfindahl Index of a hotel's customer mix} = \sum_{a=1}^{3} S_a^2 \]

\[ S_a = \text{the share of customers of type } a \]

\[ A = \{ \text{CT, LT, OT} \} \]

For example, say that a hotel has the following market mix (room nights):

- Leisure travelers (LT) 20,000
- Corporate travelers (CT) 25,000
- Other travelers (OT) 5,000
- Total 50,000

Therefore:

\[ \text{HI} = (20,000 + 50,000)^2 + (25,000 + 50,000)^2 + (5,000 + 50,000)^2 = .42 \]

\[ \text{CUSTVAR} = 1 + \text{HI} = 2.3809 \]

In our study the segments used to measure customer variety were (1) frequent individual traveler, (2) leisure traveler, (3) group traveler (including corporate, association, and leisure), and (4) others (including airlines and complimentary travelers). Product-service variety was measured by (1) rooms, (2) food and beverage, and (3) other revenue departments (including gift shop and telephone).

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10 For a detailed discussion of this study and its findings, see: Enz and Potter, pp. 51–52.

Exhibit 2

Description of the variables used in this study

Model

\[ \text{GOPPAR}_{it} = \alpha_0 + \beta_1 \text{CUSTVAR}_{it} + \beta_2 \text{REVVAR}_{it} + \alpha_1 \text{OCCRATE}_{it} + \alpha_2 \text{SMALLSZ}_{it} + \alpha_3 \text{MIDPRICE}_{it} + \alpha_4 \text{LUXURY}_{it} + \alpha_5 \text{GROWTH}_{it} + \alpha_6 \text{COSTLIV}_{it} + \alpha_7 \text{YEAR}_{it} + \epsilon_{it} \]

Variety measures

- **CUSTVAR** = Measure of customer variety (market segments) served by the hotel
- **REVVAR** = Measure of variety of revenue sources in the hotel

Undistributed operating costs (per available room)

- **ADMXPAR** = Administrative and selling expenses
- **MRKXPAR** = Marketing expenses
- **OTHXPAR** = Property, energy, and other expenses
- **TOTXPAR** = Total undistributed operating expenses

Revenue (per available room)

- **DEPTINCPAR** = Departmental income (computed as total hotel revenues minus departmental expenses)

Gross operating profit (per available room)

- **GOPPAR** = Gross operating profit (DEPTINCPAR - TOTXPAR)

Control measures

- **OCCRATE** = Annual occupancy rate
- **SMALLSZ** = Inverse of available rooms (in hundreds)
- **MIDPRICE** = Indicator for midpriced hotel
- **LUXURY** = Indicator for luxury hotel
- **GROWTH** = Employment rate for county of property
- **COSTLIV** = Cost-of-living index for county of property
- **YEAR** = Indicator variable for year effect

Exhibit 1 shows how the Herfindahl Index is calculated to measure customer-mix variety. The higher the index value, the greater the level of variety in customer mix and product mix. In our study, customer variety and product-and-service mix were measured and studied simultaneously.

Revenues, Costs, and Profits

Definitions of the variables are presented in Exhibit 2. The support costs we examined are those defined as undistributed operating expenses per available room (to control for hotels' size differences). The undistributed expenses were split into three categories: (1) administrative and general, (2) marketing, and (3) other (property, energy, maintenance, and miscellaneous). This categorization was used because the degree of variety in the mix should have varying impacts on the different types of support costs.

In this study, revenue performance was measured using departmental profit per available room. Departmental profit was computed as total hotel revenues minus departmental expenses. Departmental profit per available room approximates the contribution of revenues and product types, and the relative percentage of business in each customer segment or product type. A hotel has a large degree of customer variety when it serves many segments in equal proportions; it has a small degree of customer variety when it serves just a few segments, or serves many segments in very unequal proportions. A large degree of product-and-service variety exists when many products and services are offered and used by customers in relatively equal proportions. A small degree of product-and-service variety occurs when just a few products are offered, or many products are offered but used by customers in relatively unequal proportions.
to support costs and profits after deducting the direct costs of providing the service or product. Subtracting the undistributed operating expenses from departmental profit per available room resulted in gross operating profit per available room. We used GOP even though it does not take into account the cost of the investment in assets that are necessary to conduct business.

Controlling for Critical Factors
We controlled several factors statistically in our models to ensure that they would not bias our study. In particular we controlled for the effects of occupancy rate, number of available rooms, the segment of the market served (midprice versus luxury), the unemployment rate in the local area, and the cost-of-living index for the local area. Statistical controls of those factors allowed us to rule out their effects (i.e., hold their impact constant) on costs and profits. Many of those control factors are used by PKF Trends to examine differences in properties’ operating performance.

We controlled occupancy rate because some revenues and department expenses are directly related to occupancy and because a portion of administrative, marketing, and other costs (e.g., energy and maintenance) may move directly with rooms sold. Because local market conditions (a measure of which we took to be the area’s unemployment rate) and an area’s cost of living also affect a property’s financial performance, those measures were also controlled in our analysis. Economies of scale may exist in the hotel industry due to the indivisibility of certain costs such as permits, safety inspections, and other regulatory-compliance activities; advertising; and management salaries. Plus, among different-size properties, there are benefits that might accrue from purchase discounts for high-volume transactions and from labor specialization. We therefore included a variable for scale that is constructed as the inverse of the number of hotel rooms. Those variables were included in the data analysis as controls and described in Exhibit 2.

Variety Increases Costs
The results of our study show that properties with great product-and-service variety and serving a large number of customer segments had higher undistributed operating costs per available room than properties offering less variety and serving fewer market groups. Indeed, our findings indicate that a one-point increase in the product-and-service mix increases costs as follows (all expressed per available room): administrative costs by $4.94, marketing costs by $2.97, and “other” costs by $5.09. Similarly, a one-point increase in the variety of customer segments increases administrative expenses by $0.56, marketing costs by $1.02, and “other” costs by $0.17. Those findings suggest that both product-and-service mix and customer-segment variety have a direct effect on the magnitude of undistributed operating costs—that is, the more customer and product variety, the greater the undistributed operating costs.

The additional cost of increasing the product-service mix is not surprising because a variety index is likely to be related to the number of revenue sources. As already mentioned, it is expected that added variety requires additional support personnel for purchasing and billing, different marketing channels, and different types of lodging-property operations.

The customer-mix findings, however, are new and unexpected. They indicate that increasing the number of customer segments results in an upward pressure on undistributed operating costs. We are
unaware of any other published report in the hospitality industry that discusses the link between serving multiple customer types and the related support costs. Since it is less costly to expand customer segments than it is to augment the product-and-service mix, an expanded-customer-mix strategy may be appealing to the cost-conscious hotel operator. That, however, may be an unwise approach, as demonstrated in the following section.

**Product Variety Is Profitable; Customer Variety Is Not**

Our study found that the greater the variety of products and services offered, the higher a hotel’s departmental profit per available room. Further, the hotels that offered a greater variety of products and services had higher levels of gross operating profit (GOP). That is, a one-point increase in the product-and-service mix results in an $18.07 increase in net revenue per available room and a $5.17 increase in GOP per available room. In short, the data we collected suggest that efforts to increase product-and-service variety increases costs, but those costs are fully offset by increases in GOP (see Exhibit 3). Therefore, a hotel that expands its variety of products and services not only achieves an increase in revenues, but also has higher profitability than when it offered fewer products and services.

In contrast, hotels that increase the variety of customer segments they serve experience decreases in departmental profit and GOP even though the costs of increasing customer variety are not as great as are the costs of increasing the product-service mix (see Exhibit 4). The data revealed that a one-point increase in customer variety results in a $3.03 decrease in departmental profit per available room, and a $4.43 decrease in GOP per available room. Thus, a hotel serving a large variety of customer segments not only increases its undistributed operating costs, but also decreases its net revenue and profitability. Our findings imply that if two properties had equal occupancy, the property with the lowest customer-mix index would be the most profitable. Moreover, our findings support the conclusion that efforts to increase the variety of customer types will be unprofitable if the increase in occupancy is insufficient to offset the increases in costs and the reduction in departmental profits. Our results are consistent with market-segmentation theory, which suggests that a firm cannot effectively serve all customer segments but should instead target only those customers that the firm can...
best serve with its limited resources, and should target those groups that will yield the highest profits.12

There are a number of possible explanations for why departmental income decreases as the variety of customers served increases. One explanation has to do with management's strategic choice to reduce room rates to attract new customer segments. This might result in lower prices that are compensated for by increases in occupancy rates. In this study occupancy is assumed to be exogenous; therefore, the impact of customer mix on occupancy, if any, is not modeled. Managers may knowingly trade the price reductions necessary to increase customer mix for a higher occupancy. While this paper does not address the relationship between customer mix and occupancy, for the sample properties the correlation between customer mix and occupancy is negative. This suggests that the hotels with low occupancy have a high customer mix, which is contrary to the argument above.

Another explanation may be the effect that the customer mix has on a property’s yield-management system. As the number of customer segments increases, fewer rooms may be available to the hotel’s yield-management system. This might result in the property’s being able to manage the revenue for only a small portion of its rooms. Finally, an increase in customer mix may make a property less desirable in the eyes of some current (and prospective) customers. Specifically, mixing different customer types may tend to lessen the perceived value of the lodging experience and thus result in a reduction in the room rates that the property can command. This view is consistent with the policies of some chains that try to maintain the status of their brand by controlling the customer mix.

The Pierre in New York City provides excellent anecdotal support for the empirical findings in this study. After recognizing that maximum potential gross operating profit was not being achieved because of a strong focus on group sales, the hotel’s managers realigned its customer mix. The hotel placed strict limitations on the number of rooms allocated for group business and emphasized individual sales targeting three precisely defined, price-insensitive customer markets. The product-and-service mix was then redesigned to meet the needs of those targeted customers. As a

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result, gross operating profits tripled, profitability and ADR increased, and guest retention improved.13

Building a New Philosophy for Competitive Advantage

The major conclusion from our study is that, despite the higher associated support costs, offering more products and services leads to higher revenues and ultimately higher operating profits. By comparison, however, increasing the variety of customers served did not result in higher revenues even though this approach requires additional support costs.

Managerial Implications.

While our findings are based on only one chain of midprice hotels, ignore hotel-investment costs, and do not assess the effect of customer variety on occupancy, the results do offer some interesting implications for general managers and suggest the following strategies.

(1) Avoid going after additional customer segments unless you fully understand the effect on support costs of adding those customer segments. Increasing the number of customer segments may be more costly than you think, and doing so may not yield the hoped-for increase in gross operating profit. How many customer types are too many or too few is a complex question. Performing market analysis and having an awareness of the costs of customer-segment creep are both important for the hotel operator. Didier Le Calvez, former general manager at The Pierre, argues that it is also important to analyze the data on one's own hotel for the past five years before making any decisions. Ill-considered increases in the customer mix to handle short-term capacity problems may yield long-term losses in profitability. Therefore, any segmentation strategy should be carefully managed to yield a limited set of targeted customer segments that can be best served by your employees and available resources and that will add the most to your revenue stream.

(2) Build a broad range of products and services to appeal to the needs of your targeted customer segments. Managing and even expanding your product–service mix while carefully fitting it to the needs of a specific, well-defined target market will allow you to raise prices and increase your market share. First identify your customers and then develop new, creative, and varied products and services to enhance customer-focused value. For example, create special services or packages to attract a business traveler back to the hotel when her family can join her for a weekend or a vacation; doing so can help to strengthen the long-term relationship with that customer. A limited segment, varied-services approach could reduce the cost and effort spent finding new customers, and help you to focus your efforts on providing the right mix of services for existing customers who may already have different travel purposes. (Note that this suggestion does not preclude the viability of a niche strategy in which products and services are also limited.)

(3) A clear competitive opportunity exists for those properties that can create and deliver new services efficiently and at a minimum cost. Careful human-resources strategies that deploy labor to provide additional services and products in an efficient manner can be achieved by developing selection, training, compensation, and job-design components that are flexible and fit your market strategy. For example, Towneplace Suites by Marriott developed a cross-training program that allows it to operate the typical 95-suite Towneplace property with a service team of just 10 to 12 associates who deliver a high level of service and assume accountability for their actions.14 Care in designing an integrated human-resources strategy will yield operational effectiveness and help accommodate the increased organizational complexity that comes with the expansion of products and services.

Offer More to Fewer

An effective approach to competition that will enhance revenue, and ultimately profits, is to expand your product and service offerings and to target those to a carefully defined and somewhat limited customer mix. A value-creation model for enhanced profitability is one in which the strategic manager adds more services and products while limiting the number of customer segments served. Thinking innovatively about new services and products that can add value to a well-defined target market is the starting point. A critical next step is to integrate and align internal operations to control and leverage the likely increase in organizational complexity. Human-resource systems, practices, and policies should be designed to deliver on the integrated concept. Aligning the design of work, technology, and human-resources activities with the choices of customers and products and services is essential to achieve operational efficiency. The focus on product–and-service variety to add value for and to meet the needs of a limited set of customers is not easy to attain, but the reward for the creative strategic manager will be noticeable increases in profitability.

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