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Domestic midscale chain hotel brands' effectiveness in research and development: An exploratory study

Michael S. Lin | Wanyu Lin | Qu Xiao

School of Hotel and Tourism Management, The Hong Kong Polytechnic University, Kowloon, Hong Kong

Correspondence
Michael S. Lin, School of Hotel and Tourism Management, The Hong Kong Polytechnic University, 17 Science Museum Road, TST East, Kowloon, Hong Kong.
Email: michael.lin@polyu.edu.hk

Abstract

While many midscale chain hotel brands in China's domestic market have developed rapidly since 2010, it is still unclear how a new midscale chain hotel brand can be most effectively researched and developed. Drawing from resource-advantage theory, this study aimed to understand the effectiveness of six key attributes of new domestic midscale chain hotel brands and map them onto a research and development (R&D) competitive position matrix. The results show that the actual R&D process lasts beyond the opening of the first hotel of the new brand and requires a further 2-year maturation period. This study contributes to the literature by creating a maturation system that could play a key role in the effectiveness of the R&D underlying a chain hotel's brand development. It also provides a compelling tool for monitoring the effectiveness of domestic midscale chain hotel brands' R&D.

KEYWORDS
domestic midscale hotel brand, effectiveness, hotel industry, mixed methods, research and developNumber of the compment (R&D), resource-advantage theory

1 | INTRODUCTION

Midscale hotels in China have been growing in popularity since 2010, although their business models were still unclear at that time (Li et al., 2020). International midscale hotel brands began to enter the market, while domestic brands observed this process and grew in their own right, eventually becoming the country's primary hotel service providers (Praesri et al., 2022). Therefore, a major current focus of domestic midscale hotels is how to achieve and maintain a competitive advantage. Although domestic midscale hotel brands managed to survive the COVID-19 pandemic, they face a developmental bottleneck and are in urgent need of breakthrough advice (Hao et al., 2020).

To seize the available market opportunities in the post-pandemic era, more and more domestic hotel companies have established dedicated research and development (R&D) teams, which strive to develop new brands or revitalize existing brands (Tan et al., 2017). Such brands aim to integrate intelligent management and various trendy elements into their services to target niche markets (Chen, Lee, & Hyun, 2022). Although existing studies provide professional innovation tips for the hospitality industry since the beginning of this century (Victorino et al., 2005), there is no general framework for the whole R&D process in midscale hotel brands, let alone a measurement system to evaluate the effectiveness of R&D. Such a framework could help scholars and practitioners identify an ideal R&D-based approach to developing a suitable midscale chain hotel brand.

The main purpose of the present study was to construct an R&D competitive position matrix (R&D CPM) based on resource-advantage theory (R-A theory), which can be used as an indicator of the effectiveness of the R&D at a domestic midscale chain hotel brand. We adopted a mixed-methods approach to identify six key brand attributes and built an R&D CPM by refining the CPM used in R-A theory. Meanwhile, we explore the general R&D process at domestic midscale

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chain hotel brands by studying seven diverse brands and conducting interviews with representatives from these, including stakeholders as well as managers, designers, and investors. This study shows that the actual R&D process of a domestic chain hotel brand lasts beyond the opening of the first hotel of the new brand and requires a maturation period of around 2 years for completion. Hotel companies need to develop maturation systems promptly during this critical period, as such a system plays a key role in the effectiveness of the R&D at a new domestic midscale chain hotel brand. To our knowledge, this is the first development of a general framework for hotel R&D, and this study will extend the scope of R-A theory and its potential applications.

2 | LITERATURE REVIEW

2.1 | The development of midscale chain hotel brands in China

The mission of any hotel chain brand is to expand its market and increase its profit by enhancing its competitive capability and establishing a larger scale. In the late 1980s, China used to divide hotels into two categories: star-rated hotels for international visitors, and non-star-rated hotels for local accommodations, with a market gap between the upscale lodging facilities and low-end accommodation facilities (Yu, 1998). By the beginning of the 21st century, China had a few famous domestic hotel brands, and most were established at the same time as their respective hotel groups based on establishing models. Although the domestic chain brand groups had advantages in terms of local public relations, cultural presence, and budgetary control, these groups sought to expand their businesses by purchasing new brands or annexing property (Wu, 2002). However, it takes much more to successfully develop a chain hotel brand than simply adding rooms and properties under the brand's name (Cai & Hobson, 2004).

Propelled by the Chinese economy's large-scale development, many domestic midscale chain hotel brands were established during the second decade of the 21st century (Li et al., 2020). International midscale hotel brands, such as Hampton by Hilton, Hyatt Place, and Fairfield by Marriott, rushed into the Chinese market. In the meantime, top domestic hotel companies, such as Jin Jiang, competed to dominate the domestic midscale hotel market (King, 2015). From an optimistic perspective, chaos is a ladder! Having survived the impact of COVID-19, China's hotel market has accelerated its evolution toward a more mature model similar to that of the USA. Dai (2023) has stated that the tourism economy will steadily enter a new stage of rational prosperity.

According to a monthly midscale hotel brand list compiled by the famous domestic hospitality industry monitor, Meadin.com, 210 midscale chain hotel brands were participating in China's domestic market competition 1 month before the outbreak of COVID-19 (Meadin.com, 2019). The number of midscale chain brand hotels had experienced a sharp rise of more than 50% annually from 2017 to 2019, which kept steadily increasing, with 6.28% in 2020 and 19.60% in 2021; meanwhile, the rates at these chain hotels also increased, from 35% in 2019 to 48% in 2021 (China Hospitality Association [CHA] et al., 2020, 2021, 2022). In general, although the market was expecting a prosperous future, the competitive environment for these brands had become very intense.

2.2 | Research on midscale hotel brand innovation: An evolution of brand equity

Paul Nichols (2002) reviewed the attributes that enabled midscale hotels in the USA to remain strong after the September 11 attacks in New York, looking for the key to survival in uncertain times. Cai and Hobson (2004) indicated that it is dangerous for hotel companies to be driven by a short-term pursuit of economic scale instead of a long-term effort to establish a high-equity brand beyond a logo or a slogan. Accordingly, Kim and Kim (2007) proceeded to examine what attracts customers to midscale hotels—which is the foundation of a hotel brand's equity—to explore how to create, manage, and evaluate a distinctive and successful hotel brand. Several years later, Rauch et al. (2015) developed a 3-dimensional model with a 27-item questionnaire to measure the quality of midscale hotels, help operators improve guests' perceptions of quality, and increase the perceived value of their hotels. Not until Nunkoo et al. (2020) studied service quality performance scores and their influences on customers across accommodations with different star gradings in South Africa did we learn that safety and quality are two significant determinants of satisfaction with midscale hotel brands (Lee et al., 2023). Wang and Chung (2015) and Wang et al. (2020) identified the dimensions and components of brand portfolio strategies, helping hotel managers to both track and monitor their competitive positions over time so that brand portfolio strategies could achieve competitive advantages. By collecting 214 responses from frequent travelers from the USA with memberships at hotel firms, he also found that when hotel sub-brands are approved by customers this has positive effects on the corporate brand. Thus, there is a customer satisfaction spillover within hotel brand portfolios (Pai et al., 2023).

However, the COVID-19 pandemic changed local customers' preferences and consumption behaviors. Customers expect varied experiences during their stay (Hao et al., 2020), while men and experienced guests value cleanliness much more now (Yang et al., 2023). As for hotel investors, Hao et al. (2020) found that such investors are more cognizant and concerned about the returns on their projects due to the pressure from the COVID-19 pandemic. To achieve a competitive advantage in the domestic midscale hotel market in the post-pandemic era, chain hotel brands have been exploring new breakthroughs, mostly via the following three approaches.

2.2.1 | Hybridizing brands

Striving for the equal attention of both investors and consumers, midscale chain hotel brands have been hybridized (Baker, 2022).

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According to the Hilton Group (2022), people tend to prefer deeper, more engaging and humanized experiences and connections. They recognize travel as an essential part of their wellness routine and need to be taken care of more than ever. Huang and Tsaih (2022) conducted a questionnaire survey of 30 hotel operators in China, finding that more and more hotels are using lobbies to host cross-sector operations, such as art galleries, retail stores, and restaurants, providing their guests with a comprehensive experience. Floyd (2022) predicted that, by aiming for a wider spectrum of uses beyond traditional accommodations, hotel groups will redefine the roles of rooms and lobbies by providing workspaces, party spaces, and more. Generally, the hybridization of midscale hotel brands reflects the rise of various Hotel+ concepts, according to which hotel designs incorporate new functionalities, from traditional bed and breakfast to enhanced space efficiency, ultimately improving the investment return capability of hotel services.

2.2.2 | Smart services

Starting around the turn of millennium, many local technology companies began to research and test intelligent devices for hotels, cooperating with hotel companies, such as H World Group, and colleges, such as the Harbin Institute of Technology (Ye, 2018). According to the China Tourist Hotel Association et al. (2022), 2021 marked the beginning of the digital transformation of China's hospitality industry, and domestic hotels are currently in the midst of a digital-transformed period. The pandemic changed consumer habits, and technology companies rapidly implemented "contactless" solutions during the pandemic, such as service robots. Hilton's research (Hilton Group, 2022) indicated that 56% of travelers prefer facilities that make travel easier through frictionless innovations that use both technology and human staff. Accordingly, Koo et al. (2023) found that smart hotel brand experiences positively affect brand loyalty, and Ruan et al. (2020) indicated that technical solutions and smart technology play a critical role in building hotel brands' equity. Several technology companies in China (e.g., Puietel, Resthour, Xiezhu, and Yunji) have already gained competitive advantage with independent innovation capabilities (Hao et al., 2020), and Borzillo and Hasman (2022) suggested that sharing data makes hotels more anti-fragile, with technological support serving as an enabler for surviving future crises.

2.2.3 | Modular design and construction processes

Modularity is a necessary design attribute since it shortens the design and construction lead-time of a project and reduces costs, enhances construction efficiency, and facilitates flexibility in spatial planning (Huang & Tsaih, 2022). Whitfield et al. (2022) explained why modular construction is a better approach than traditional in-situ construction using a case study of the extension of Crowne Plaza Changi Airport in Singapore, where the hotel was able to continue "business as usual" throughout the entire project. Chen (2023) analyzed three different hotels in China, South Korea, and the UK, finding that modular construction can enable effective management by shortening construction times, saving labor and costs, and reducing waste. As for hotel construction in China, the local modular design in the domestic hospitality industry originates from the domestic real estate sector. Thanks to the rapid development of the real estate industry, a modular design approach based on standardized templates was created through the joint efforts of local design institutions and construction organizations. In the face of intense competition in the existing market, brands are compelled to expand rapidly, which, in turn, necessitates more flexible and cost-effective product design capabilities.

Overall, scholars have taken different approaches to analyzing R&D at domestic midscale chain hotels. Most focus on a breakthrough in research or technology in a certain field for a typical sample category, and they usually choose the singular perspective of one stakeholder group, such as customers, hotel companies, and, less often, hotel investors. Thus, there remains a significant need for a clear map of the entire R&D process for a new chain hotel brand, especially one that accounts for both hotel services and lifestyles, which are popular in the market. Meanwhile, an effectiveness indicator for the R&D process that is acceptable to both chain hotel brands and hotel investors is direly needed.

2.3 | Resource-advantage theory and its application in the hospitality industry

Hunt and Morgan (1995, 1996) constructed a CPM to explicate a comparative advantage theory of competition they introduced in 1995, which was officially named R-A theory. They needed a schematic to portray the dynamic process, inherent in this theory, of how superior returns can be yielded by available resources. Since competitors will attempt to neutralize existing advantages and trigger another round of competition, equilibrium is a normal state in R-A theory. According to this theory, resources are defined as the tangible and intangible entities that enable an organization to achieve a competitive advantage in a market segment and, eventually, to produce superlative financial performance. Resources are categorized as financial, physical, legal, human, organizational, informational, or relational (Hunt, 2012). Hunt (1995, 1997, 2012) has consistently contributed to the evolution of R-A theory, providing numerous examples to illustrate this theory, Peranginangin (2015) compared R-A theory, competitive advantage theory, and transient competitive advantage to emphasize the importance of innovation capabilities for future use and advise users to change their perspectives accordingly.

As for the hospitality and tourism industry, Deng and Zhu (2003) used R-A theory to analyze the development of tourism resources in China. However, few studies have directly applied R-A theory in research on hotels, although many have linked this theory to a resource-based view. Meanwhile, the CPM used in this theory has a deficiency that it only displays competitive positions in nine cells, which prevents researchers from precisely representing the

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TABLE 1 List of seven samples.

No.	Sample code	Product category	Initial company size when start R&D	Scale of hotel number (up to 31 December 2022)
1	A	Lifestyle hotel	Large national group	≦50
2	B	Lifestyle hotel	Small regional company	≦50
3	C	Lifestyle hotel	Small regional company	500–1000
4	D	Business hotel	Small regional company	≦50
5	E	Business hotel	Small regional company	≧3000
6	F	Business hotel	Large national group	500–1000
7	G	Business hotel	Large national group	1000–2000

TABLE 2 List of the interviewees.

NO.	Interviewees code	Roles	Basic requirements
1	X1–5	Hotel investor	Have invested more than two midscale hotels joined different brands, with a least one domestic chain hotel brand
2	S1–3	Hotel designer	Participated in R&D work of at least one domestic midscale hotel brand, with its first hotel opened
3	A1–G1	R&D staff of the sample brand	Have at least 1 year work experience corresponding to their roles for the sample
4	A2–G2	Business develop manager of the sample brand	
5	A2–G3	Hotel general manager of the sample brand	

differences between multiple competitive samples in a market segment with fierce competition.

3 | METHODOLOGY

Both qualitative and quantitative research methods were used during this study in order to investigate the effectiveness of domestic hotel chain brand R&D work. We conducted semi-structured interviews to understand the R&D processes and key attributes of seven domestic midscale chain brands. Starting with quantitative research, we explored the general R&D process at these brands and eventually developed a matrix rooted in R-A theory to measure the effectiveness of this R&D work. The attributes and general R&D processes were identified through semi-structured interviews about domestic midscale chain hotel brands.

3.1 | The respondents

For this study, seven domestic chain hotel brands were chosen as the sample. To diversify the sample, Table 1 represents two different hotel categories of companies with different sizes and brand features. All opened their first hotel before the outbreak of COVID-19, and six were picked from a monthly list issued by a famous local media outlet, Meadin.com (2019)—namely, the "Monthly Meadin Brand Index list of midscale hotel brands" for November 2019—which included 210 hotel brands before the pandemic.

The investigation involved five different roles, which are presented in Table 2. For the sake of collecting multiple perspectives, we interviewed stakeholders in hotel management companies, hotel investors, and hotel designers, the last of whom are responsible for designing standard models for new domestic hotel chain brands and often act as key third parties during the preparation of a new hotel project (see Appendix A for interview outlines for the different stakeholders). After each interview, we promptly transcribed the recordings using an automated transcription tool linked to a mobile application called iFLYTEK. This resulted in the creation of interview notes.

3.2 | The R&D competitive position matrix as a data analysis framework

As mentioned previously, the idea behind using R-A theory was to construct a matrix to display the relative positions of the sample's R&D processes, which were used to evaluate its effectiveness. The CPM drawn from this theory provides a vital tool for discussing competitive ranks by comparing resource costs with performance value in a segmented market (Hunt & Morgan, 1995, 1996). Therefore, this matrix was used as an indicator of the effectiveness of the initial resource costs and resource-produced value of the sampled brands' R&D work. In R-A theory, the CPM is used to indicate the relative advantages of the competing subjects. The matrix consists of nine cells representing nine possible competitive positions, as shown in Figure 1.

Positions identified as competitive advantages (cells 2, 3, and 6) accrue a value greater than their cost, while competitive

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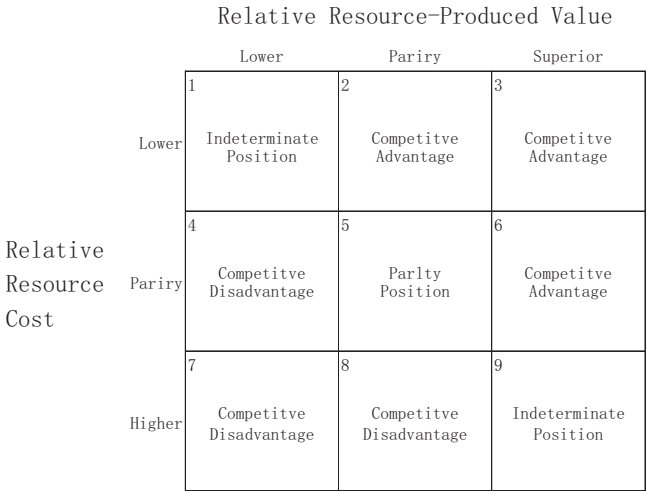

FIGURE 1 Competitive position matrix.

disadvantages (cells 4, 7, and 8) are undesirable. Cell 5 is the parity position, indicating average returns. As for the indeterminate positions (cells 1 and 9), they are determined by the extent to which the relative resource-produced value is less than, equal to, or greater than the subject's relative resource parity costs (Hunt & Morgan, 1996). The R&D CPM consists of two dimensions: the R&D-relative resource cost (R&D cost), and the R&D-relative resource performance (R&D performance). This modification enables the matrix to be used with other measurement tools, such as the Likert scale.

The values for calculating R&D cost were obtained from the interviews with R&D staff at the hotel companies. In the meantime, based on the multiple perspectives examined in our study, R&D performance should benefit mutual stakeholders rather than just hotel companies. In particular, this study took no account of each new brand's asset performance under R&D performance, as this is almost exclusively profit for the management company, no matter how much capital is attracted. Therefore, the attributes evaluated for R&D performance were picked mainly based on the interviewee with hotel project investors, concentrating on the hotel's product performance, to enable this matrix to benefit multiple stakeholders.

3.3 | Data analysis

Interviews were conducted intermittently over approximately 10 months, from November 2022 to October 2023. We used a semi-structured interview approach, which is not rigidly tied to a specific outline but allows for flexibility and adaptability based on the interview context (Bernard, 2013). In the initial stages of the interviews, efforts were made to let the interviewees express their thoughts freely, gradually opening up the conversation. Throughout the interview process, the discussion revolved around the main theme, and questions from the interview outlines were raised at appropriate times. Follow-up questions were then posed based on the specific interview situation and the importance of the questions. A profile of the interviewees appears in Appendix B. Of the 26 interviewees, 5 are hotel project investors, and 3 are hotel designers. The remaining 18 interviewees came from different hotel management companies that own the seven brands, including 6 R&D staff, 6 business development managers, and 6 general managers at hotels. In total, 26 interviewees' responses were transcribed and translated, yielding approximately 130,000 words. This transcription formed the foundation for the subsequent research analysis of the article.

4 | RESULTS AND ANALYSIS

We used both quantitative and qualitative methods to evaluate R&D effectiveness at new domestic midscale chain hotel brands. A CPM drawn from R-A theory was constructed following semi-structured interviews with 26 stakeholders. Simultaneously, a survey was carried out to gather perspectives on the six attributes identified during the interviews with the intention of investigating their overall importance and performance.

4.1 | A general process framework for domestic midscale chain hotel brand R&D

In our study, a general framework for domestic midscale chain hotel brand R&D was articulated based on information gathered from the interviewees. As can be seen in Figure 2, this process comprised four steps: market insight, prototype construction, standard implementation, and feedback mechanism. This framework suggests that R&D is a dynamic and ongoing process. The end of the initial R&D stage in this process automatically activates the next round for iteration.

4.1.1 | Market insight

In the context of market insights, the first step is brand positioning—as suggested by professional market insight work—and the major goal of the following phase is brand planning and product model planning. Brand positioning is both internal and external. Internally, it determines the brand's role within the enterprise—whether it is primary or supplementary—to enrich the brand matrix. Of the seven brands sampled for this study, only Brand A was defined as supplementary to the company; all others were primary brands in their companies' future development. Externally, it determines the brand's market positioning planning and, accordingly, its product model planning, which includes the business model of its hotel product. Only Sample B had hired a professional brand planning company with international hotel brand consulting experience before its formal R&D. Interviewee B1 indicated that the excellent performance of Sample B in the later stage is attributable to its accurate market positioning, determined with the help of a professional team at the very beginning. However, five R&D staff from another sample confirmed that initial brand market positioning was essentially dictated by the brand leader and its internal

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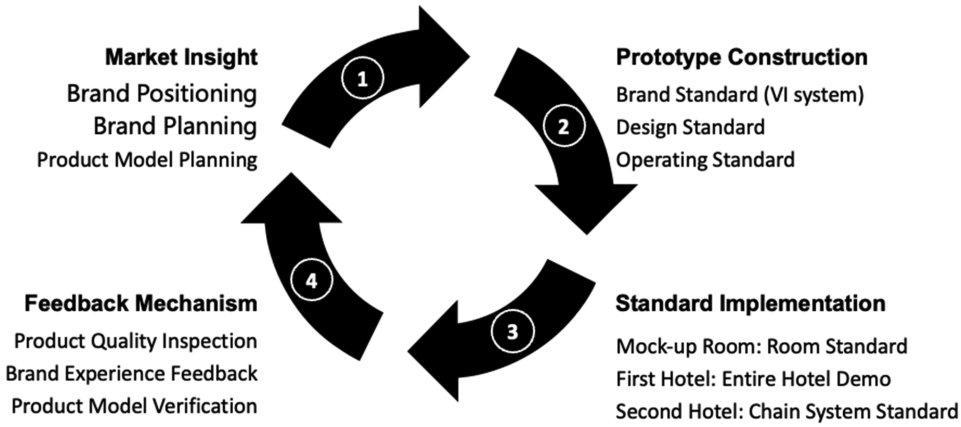

FIGURE 2 A general process framework of domestic midscale chain hotel brand R&D.

team, relying on their experience and understanding of the market at that time.

4.1.2 | Prototype construction

The second step is prototype construction, which involves the establishment of brand, operating, and space design standards. The brand standard mainly involves outsourcing visual identity design work, which requires professional art design technology, to conventional graphic design companies. The majority of the operating standards were self-developed by the brands' operation teams, and a final standard operating procedure would be drafted accordingly (Chen, Hyun, & Lee, 2022). The space design standard, which mostly refers to how the locale is decorated, was usually packaged with the technical engineering standards behind the decorations, which were outsourced to a space design company. Designer S1 believed that local standard midscale chain hotels require spatial design units with experience in standard R&D design at this stage. Rather than just providing fancy pictures based on brand positioning and brand story, they should implement standard key-space model designs within the cost range that meets the expected return on investment, which was also the main dispute between management companies and investors. "One of the keys is a sense of arranging different action routes for customers and employees," said S1.

4.1.3 | Standard implementation

The third step typically begins with a mock-up room in the second hotel of the new brand, which is built to test the standards inside rooms. The entire hotel demo should be tested via the first hotel. While preparing for the second hotel, the brand management company would optimize the hotel demo and its support system for chain brand management. Meanwhile, at this stage, the company-owned hotels play a crucial role. To reduce costs, some domestic hotel management companies directly test demos or even mock-up rooms for actual franchise projects. All three designers interviewed believed that without company-owned hotels, it may be difficult to complete their ideas rely on investors. C2 mentioned that Company C invested in one company-owned hotel every 1–2 years. An employee of Company G stated that the overall direct store ratio of the whole company was approximately 10%. E1 emphasized that the slow development of Company E in the first 2 years resulted from their boss insisting on concentrating on company-owned hotels and continuously fine-tuning them before starting franchises.

4.1.4 | Feedback mechanism

The last step is establishing a feedback mechanism, mostly using product quality inspection, brand experience feedback, and product model verification. All general managers interviewed said that their brand had a strict standard inspection system. For example, C3 indicated that Company C had paid great attention to customer reviews on OTA and held a national, synchronized general manager meeting every night to provide timely feedback on any issues discovered. This stage is iteratively connected to the next round of R&D. Designer S1 mentioned that the speed of opening a new generation of domestic hotel brands was much higher than that of international brands, and a product should be iterated every 2 years. In the meantime, all five investors reported high expectations for domestic hotel brands. X5 said that, if they can continue to improve, he would like to focus more on domestic brands.

4.2 | Six attributes for the R&D CPM

From the opinions the interviewees shared we derived six attributes divided into two dimensions, as detailed in Appendix C. Meanwhile, each attribute had 5 grades, for a maximum score of 5. During the interviews, we recorded the main attributes about the initial resources provided for R&D from the R&D staff and business development managers.

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4.2.1 | R&D relative resource cost: Funds, talent, and company-owned hotels

Funds (FD) were defined as the initial amount of money invested in the R&D of the new brand. Among companies born in large national groups with multiple brands, such as Companies A, F, and G, a very small amount of funds was allocated in the beginning. F1 emphasized this:

> The chairman encouraged employees to start new businesses, so he invested one million yuan into each new brand—one million as initial funding. Then the new brand was responsible for its own future. If the new brand survived accordingly, the employees then became the brand founder … Brand F was very competitive, and all the advantages that we achieved step by step, we achieved ourselves.

A1 and an employee from Company G also mentioned that only around one million yuan was allocated for A and G. Conversely, the brands established by a small, regional company received all the attention, using almost all the integrated resources for the whole company, especially its registered capital. To follow-up on this, we found the registered capital of Brands B, C, D, and E on a well-known domestic website, Tianyancha. Both B and D's company-registered capital was around 30 million RMB. While Company G received more than 100 million RMB, C obtained an initial investment beyond 500 million RMB. Therefore, the five grades of funding were <RMB 10 million, RMB 11–50 million, RMB 51–100 million, RMB 101–500 million, and >500 million.

Talent (TT), as the second attribute of R&D cost, represents initial professional skills or a professional support system for the team. According to the interviews, all companies had a founding team responsible for serving as CEOs and operations, technical support, and branding staff. Hence, these categories were set as the first grade of talent and scored as 1. Wang et al. (2020) indicated that the sub-brand of a large company can indeed enjoy ready-made consumer preferences and dedication spilled across the company's successful system. Therefore, another four grades were determined by adding one item each for business development marketing (with membership), purchasing, and other fields, thus incorporating the different internal assembly lines mentioned by A1 and F1. Companies A, F, and G, which emerged from large national groups, obtained a score of 5. As for B and C, their chairman or CEO had organized a team with almost full functionality, including legal staff, when they first established the company. Company B obtained regional membership resources and a purchasing staff since the chairman chose an old regional midscale system to support the R&D. Since both participants lagged far behind the big companies, they were scored as 0.5.

Although no direct information about initial talent resources came from Company E, we collected some details from D1, since they established D only 3 years after E, which was a major competitor for more than a decade. According to D1, D had a similar development mode in the beginning. Both of their chairmen insisted on verifying their initial hotel product demos in the first few hotels in the first 3 years and did not start to develop franchises until the demo had given their superiors enough confidence. Hence, due to the absence of necessary business development initially, Companies D and E both scored 1 for initial talent resources.

The last attribute for R&D cost was a company-owned hotel (CH), which is considered very important for a new brand, according to all the R&D staff and two hotel designers. Many hotels in the early stages at Companies B and D were privately funded by company or management shareholders with a franchise contract and submitted brand management fees to the company accordingly. Therefore, in this study, neither case would count as a company-owned hotel. For this attribute, only the hotel directly funded by the company would count. Participants with no company-owned hotels, such as B and D, would score 0. Other companies were given different scores according to their number of company-owned hotels within five grades: 1–10, 11–30, 31–50, 51–100, and >100. Company A had been unable to open even one company-owned hotel due, A1 and A2 suggested, to the neglect of the group. Company F earned itself a miraculous explosion in scale within a few years, regardless of the same 0 for this attribute. Furthermore, having been granted sufficient funds, Company C had more than 30 company-owned hotels, while E had over 50. As the strategic future and scale pillar of the group, G had more than 100 company-owned hotels since the average rate of all brands in their company was 10%, and G had acquired more than 1000 hotels.

4.2.2 | R&D relative resource performance: Growth ability, resilience, premium ability

The three attributes left (see Appendix C) were recommend by hotel investors as representing R&D performance. Obtained from the investor interviews, the performance evaluation used in this study is highly appropriate to the investment return capability of the hotel project. For all five inventors mentioned ROI as the critical indicator when choosing a new brand. However, all the business development managers would tell them was that the return time is about 3–5 years. They would never know the exact answer until they invested. Therefore, as X2 said, information, such as brand reputation, market share, and growth ability should be helpful when considering a new brand.

The growth ability of a new brand is a key index of its overall performance, as X2 indicated: "The difficulty of the brand's development can indicate the growth potential of your brand. This is how I measure a brand's performance." The five grades for this attribute stem from a thorough investigation of another 10 domestic midscale chain brands from the Top 50—indeed, from the same list we picked six of our seven samples from (Meadin.com, 2019). By checking news articles online, referencing hotel introductions on Ctrip, and asking the relevant people, we found that more than 70% had opened more than 30 hotels within 2 years after the first hotel. Among them, two brands

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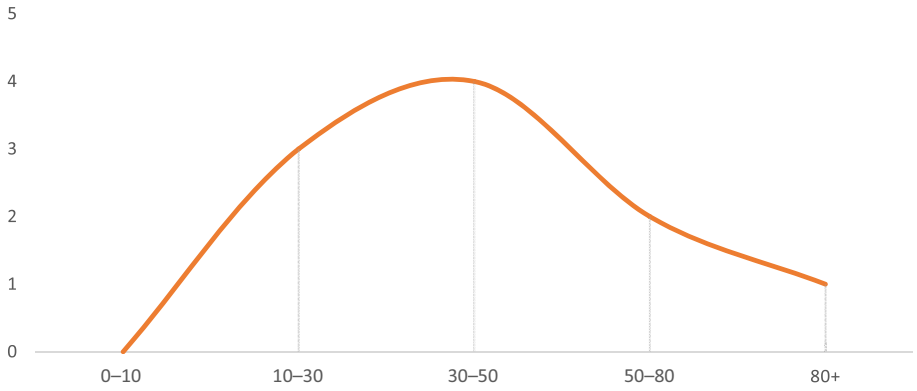

FIGURE 3 Scale of another 10 domestic chain brands from the TOP 50 of same lists. [Colour figure can be viewed at wileyonlinelibrary.com]

did so amid the failure of the brand's first vision; thus, we took the first hotel of their second vision into account instead.

As shown in Figure 3, in the majority of cases, the scale of a successful domestic midscale chain hotel brand is roughly from 30 hotels to 80 hotels. Therefore, the five grades of growth ability were set as <10, 11–30, 31–50, 51–80, and >80. As for the sample, Company A opened about three hotels within 2 years after their first hotel opened in 2019, as A1 complained, because of the lack of a support system and COVID-19. However, Company B, as a new brand launched in the same year and native to a small company, opened 11 hotels in same period. Company F, which shared a similar initial situation with Company A, had magically rocketed up its scale to more than 100 within 2 years after its first hotel. The number for C exceeded 30, while Companies E and D both opened less than 10 hotels in this period. E1 explained that this was because their boss insisted on verifying the hotel demo via company-owned hotels and refused many franchise contracts. D1 shared the same reason.

As X2 suggested, resilience during off-seasons, especially in the face of disaster, shows a hotel brand's ability to survive with a balanced budget. Šerić and Mikulić (2020) indicated that the capacity to save energy needs to play a greater role in future hotel management. Borzillo and Hasman (2022) also pointed out that, since hotels have experience facing crises, we should know more about how to make costs profitable during off-seasons. In this study, the resilience of the participants was divided into two dimensions, signifying the change range of both the scale and the average daily rate (ADR) during the COVID-19 pandemic period compared with 2019. However, we found that the ADR data obtained through personal inquiries was relatively subjective. The average ADR provided by A1 for the pandemic period was even higher than a normal day's average ADR in October 2023. While X2 had mentioned that as an investor in Company E, he was disappointed at its permanence during that period, E2 insisted that Company E's overall ADR was almost the same as in 2019. As for G, its staff said the figure was absolutely higher than that in 2019. Therefore, due to the lack of comprehensive and objective data, the resilience attribute in this research was defined only by the change range of the scale. Based on the data collected from online news or provided by the staff and verified via the hotel information on OTA, the five grades of resilience were set as <50%, 51%–100%, 101%–200%, 201%–300%, and >300%.

Finally, the attribute premium ability (PA) was recommended by X1 as the ability to seize an opportunity and raise prices in time to improve revenue. In the meantime, X5 also mentioned the reason he chose Brand G: he saw a well-known brand with a powerful management system and believed these advantages would create a certain level of premium brand ability relatively quickly compared with other brands. Consequently, PA, in this study, was set to combine the two options they provide. We used the average score of the extent to which the company increased their overall daily ADR during peak seasons (PA-1) and how much this sample exceeded the competitive market in overall daily ADR (PA-2). In other words, we divided this attribute into two attributes with separate grade systems.

In order to obtain data for this attribute, we used an application of Ctrip, as mentioned previously, checking their room prices on holidays and normal days in September and October 2023. This was because there was a National Day and the Mid-Autumn Day holiday starting on September 29. The market hit its peak that night, and this peak lasted for 8 days until October 6. This Golden Week is one of the famous peak seasons in China, with the other being the Labor Day holiday. For the ADR, we checked the rate 1 week in advance for a stay with seven nights (Wang et al., 2019), and chose the lowest rate shown on the first page. For each company, we picked up its hotel with the highest price (rate sample-h) and the lowest-priced hotel (rate sample-l) on September 29 within China's first-tier cities: Beijing, Shanghai, Guangzhou, and Shenzhen. Brand A only had one hotel in first-tier cities, so this range included all hotels for this sample. We kept checking rates until 2 weeks after the holiday and used the average ADR for both rate sample-h and rate sample-l for these 14 days, as the overall ADR for the brand's normal day (ADR-n). In the meantime, we used the company's highest price as the ADR for the peak season (ADR-p).

As for PA-1, by comparing the gap between the ADR-p and the ADR-n, the index of PA was obtained. According to the data collected, five grades of PA were set: < 80%, 81%–120%, 121%–160%, 161%–200%, and >200%. In order to determine the average of the overall market ADR for PA-2, we checked all sample hotels picked above as a competitive group representing the overall performance of the domestic midscale hotel market in this study. The average ADR-p and ADR-n of this overall market were RMB 1071 and RMB 421, respectively. We then compared each company's ADR-n with the overall

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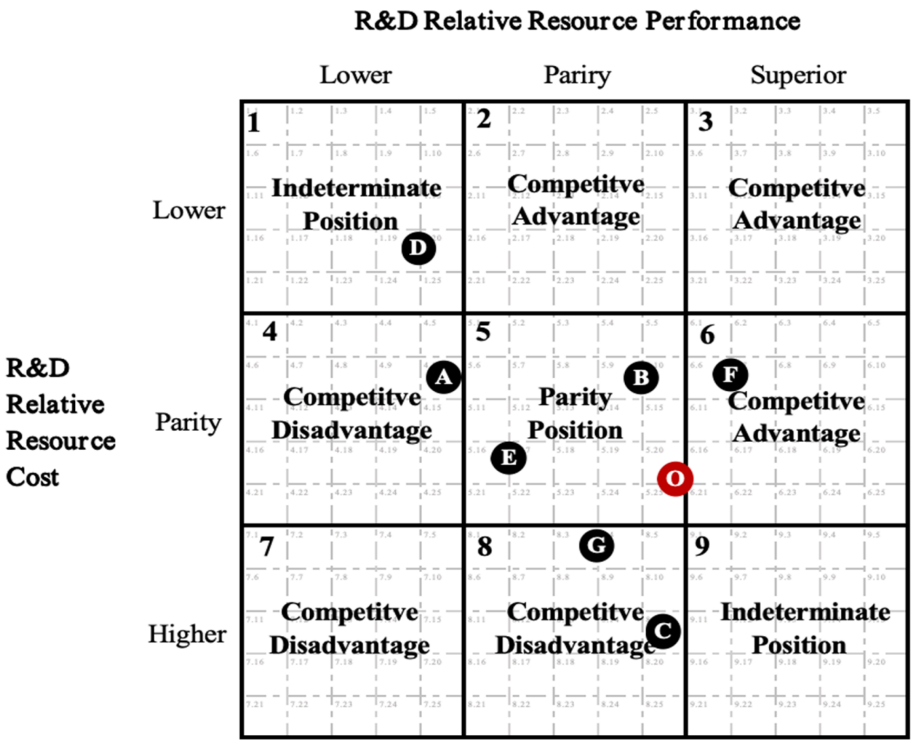

FIGURE 4 Seven samples versus overall market in the same R&D competitive position matrix. [Colour figure can be viewed at wileyonlinelibrary.com]

market ADR-n and recorded the gap as sub-attribute PA-2. Finally, we set the score grades of PA-2 as <−20%, −20%–−11%, −10%–10%, 11%–20%, and >20%, accordingly.

4.3 | The sample's effectiveness and the overall market mapped in the R&D CPM

The final scores of the six attributes for the seven sampled companies and overall market are shown in Appendix D. We imported the scores for R&D cost and R&D performance from each sample into the R&D CPM. Hence, their effectiveness would be displayed on the same map, as in Figure 4.

Sample F occupies cell 6 as the only winner in this study that gained a significant competitive advantage, indicating that they successfully lowered costs while maintaining superior performance. In contrast, it may be surprising that C and G occupy cell 8, but this is due to their large-scale resource consumption, which went beyond their current performance. They let themselves fall into a competitive disadvantage, like Company A, which occupies cell 4 due to poor performance. In the meantime, Companies B and E occupy two opposite corners of cell 6, both obtaining a parity position. While Company B shows great potential to jump up to an advantage position, E is trapped in a corner, surrounded by potential disadvantages. As for Company D, it occupies cell 1, remaining in an indeterminate position as a result of its conservative approach.

At the end of this stage, the scores for the six attributes of the sample and the overall midscale market were calculated according to their occurrence during the general R&D process described in the previous section. The six attributes did not appear independently one by one. Funding was the basic resource that supported every step, while talent was engaged beginning in step 2 and reappeared in steps afterward. A company-owned hotel, as an important tool for testing standards and verifying the hotel's product model, appeared in step 3. All three performance attributes showed up after the four steps, indicating the performance of the R&D for this round.

The average of the attributes from each step was used to represent their overall behavior. Figure 5 shows the behavior of all the attributes for the sample and overall market, and it may provide more sensitive information. As we can see, Companies C and E were started with sufficient initial R&D resources to gain an advantage in the second phase, but they indulged in enjoying the comfort provided by their resources, making it easy to uphold their responsibility to maintain equivalence between performance output and resource equivalence. In contrast, without such a lucky start, Company F still achieved a stark rise in performance in the second stage through its marvelous talent's efforts in the later stages. This result suggests that step 3 and step 4 comprise a challenging phase. No matter how much funding a new brand gains at the beginning, it is this phase, in which it is necessary to comprehensively apply all resources, that marks the key transition from a single demo to a mature system within a domestic midscale chain hotel brand.

5 | DISCUSSION AND CONCLUSIONS

5.1 | Discussion

Domestic midscale chain hotel brands face the challenge of achieving effective R&D while creating a marketable new brand with minimal

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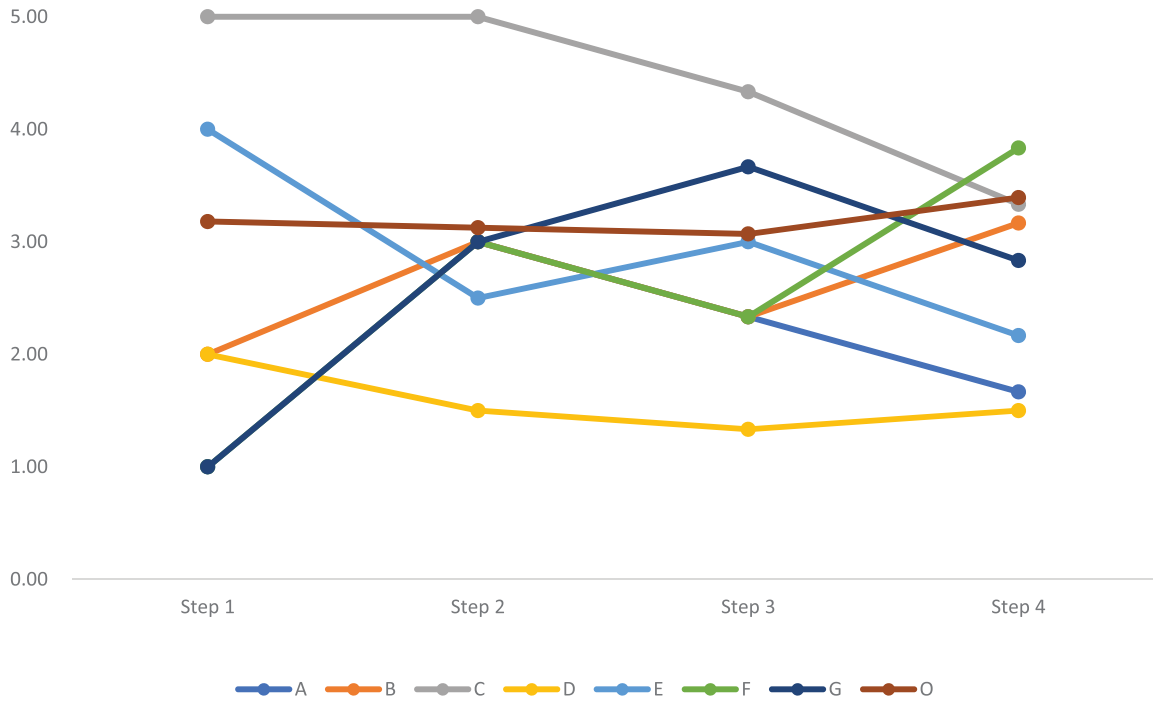

FIGURE 5 Attributes of seven samples and overall market behave during the R&D process. [Colour figure can be viewed at wileyonlinelibrary.com]

initial resources. In this work, we sought to design an R&D CPM rooted in R-A theory to show what makes domestic midscale chain hotel brand R&D effective. With this intention, a general process framework for domestic midscale chain hotel brands' R&D and six attributes for its effectiveness were obtained from semi-structured interviews. With the attribute data for the seven samples and the overall market in hand, we developed an R&D CPM accordingly as an R&D effectiveness indicator for domestic midscale hotel chain brand. Our findings enrich prior work on midscale hotel R&D by providing results that are comparable to existing research.

5.2 | Theoretical contribution and managerial implications

The general process framework explored in this study is, to our knowledge, the first designed to represent the entire process of domestic midscale chain hotel brand R&D. This general R&D process can be widely adopted by most domestic midscale lodging brands that depend on a standard demo for rapid expansion, enhancing the generalizability of this study. By using the R&D CPM on seven samples, we found evidence to suggest that, for brands that do not need to bear asset value, the wisest method is to start with small funds but powerful talent and gradually increase their value to exert leverage during the second phase of the R&D process. Moreover, due to the dynamic nature of R-A theory, there are changes in the state of resources in a new round, as well as changes in how resources are used. Each company would also shift within the R&D CPM, which may yield a "jump" or "drop" in rank, indicating the effectiveness of the R&D in the new round. In the post-pandemic era, competition among domestic midscale hotels will be increasingly fierce, and updates will be demanded more and more quickly. Therefore, their R&D process is likely to be gradually compressed, ultimately forming a continuous "micro-R&D."

It seems like starting R&D for a new brand of domestic midscale chain hotel is quite commonplace since, at the beginning of the R&D process, the hotel would not have to expend much effort beyond confirming its product model construction. In fact, the value perception of midscale hotels tends to be just "slightly more comfortable" and "slightly higher quality" than basic needs, since customers expect only a "slight" emotional experience beyond good quality at the consumption level of RMB 300–400. Therefore, "slightly" is enough, as long as the product model remains healthy enough to yield the investment return promised to the investor.

On the other hand, when and how to determine to finish R&D is a cruel-yet-necessary question posed at the start of the second phase, which consists of choosing the key steps of the new brand's construction of a standard system and feedback mechanism. As mentioned above, most (70%) of the "Top 50" domestic midscale chain brands mentioned in this study opened more than 30 hotels within 2 years after their first hotel. This seems to correspond to a reasonably estimated increase in opening speed at domestic midscale hotel chains. As per S1 and a senior engineering director with more than 10 years of experience, the regular preparation time for a standard domestic midscale hotel is 6 months, or about 180 days. Meanwhile, the basic manifestation of a chain's success is that they open new hotels rapidly.

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Following the demo implemented at the first hotel, the new brand would encounter the greatest challenge on its way to maturity: doubling the number of opened hotels every 6 months at least. This should create 2, 4, 8, and 16 more new hotels for this new brand by the end of the 6th, 12th, 18th, and 24th months, respectively, resulting in a combined achievement of 30 new hotels at the end of 2 years. Therefore, it appears that a growth rate of 30 hotels within 2 years after the first is a significant sign of maturity for a new domestic midscale hotel chain brand. We found that in virtually all cases, a company-owned hotel may no longer be a strategic key due to market demand iterating faster and faster; it no longer has time to showcase the latest version. Moreover, as investors become increasingly professional and tend to directly evaluate brand performance based on actual franchise hotels, the role of the company-owned hotel as a bigger mock-up room has been weakened. Therefore, after establishing a preliminary standard model, a new brand should quickly implement and develop brand extensions. In the process of scale expansion, the competitive environment will optimize the standards during brand extension. In an era of uncertainty, it is therefore speculated that completeness is more important than perfection when opening a new domestic midscale chain hotel brand. With a complete demo, the new brand should quickly start its engine to grow directly in the market—after all, the market is the final judge in this competition.

This study plays a pioneering role in developing a framework for the overall R&D process at domestic midscale chain hotel brands, enriching research on midscale hotels. Most notably, this is the first study, to our knowledge, to investigate the effectiveness of midscale hotel R&D work and provide a compelling tool for monitoring this effectiveness. Our results provide compelling evidence for upcoming innovation in domestic midscale hotel competition. Therefore, by expanding the applications of R-A theory in the hospitality context, these profiles may help predict a more efficient and healthier R&D mechanism for the domestic hospitality industry.

5.3 | Limitations and future research implications

This study has a few limitations. First, we mainly focused on analyzing internal resources without fully considering the external environment. Our research team is continuing to explore this, and the next step will be to conduct a more in-depth analysis of the dynamic feedback between internal and external environments. Second, X2 mentioned that a key reason for choosing Company C was the brand's good market reputation. However, due to a lack of sufficient big-data resources, this study was unable to incorporate the feedback from consumers into the performance evaluation attribute. Future work should enrich this research by integrating big-data technology and customer perspectives. Third, the seven hotel brands sampled were at different stages of brand development. New brands face the same competitive environment but more brutal challenges then mature brands. Therefore, future studies may consider comparing brands at the same life cycle stage to provide precise validation.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data will be made available from corresponding author upon reasonable request.

ORCID

Michael S. Lin https://orcid.org/0000-0001-5335-322X
Qu Xiao https://orcid.org/0000-0002-8979-9511

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APPENDIX A: INTERVIEW OUTLINES FOR HOTEL INVESTORS, DESIGNERS, AND COMPANIES

Hotel investors:

No.	Questions
1	When did you first invest in a midscale hotel brand?
2	How many domestic midscale chain hotel brands did you have inverted?
3	What are the characteristics of these brands?
4	What are the main reasons for choosing them?
5	Which one are you most satisfied with so far? And why?
6	From the perspective of hotel investor, what do you think can be used as the main attributes to define the success of the R&D work for a midscale hotel brand?

Hotel designers:

No.	Questions
1	How many key stages are there in a typical local midscale hotel project, from the start of design to opening?
2	What are the typical disputes between the hotel band's management company and the hotel project's investor, during these critical stages?
3	With same product type, brand grade, and business terms and conditions, what which domestic midscale chain hotel brands would you recommend to hotel investors? Why?
4	To your knowledge, how did the brands you recommended conducted their R&D?
5	How did these brands kept successfully iterating after they implement their first standard version?
6	Will there be any midscale hotel brand directly conducting initial R&D work during the preparation of its first hotel project?
7	What do you think are the current problems with the R&D of domestic midscale chain hotel brands?
8	In your opinion, what are the reasons for these problems?
9	How do you view the future of domestic midscale chain hotel brands?

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Hotel companies:

NO.	Target information		Questions	R&D staff	Business develop manager	Hotel general manager
1	Resource status	Initial resources	Has an independent professional team been formed synchronously since the start of R&D?	√	√	
			How much expenses have been invested to support the brand's R&D?	√	√	
2		Utilization of resources	Does your brand have any company-owned stores?	√	√	√
			How does the management company ensure the implementation of brand standards during the preparation for a hotel project?	√	√	√
3	Initial condition	Initial positioning	What was the positioning of this brand in the company's strategy when they stated its R&D?	√		
4		Professionalism of positioning	Have you ever had a professional third-party company conduct market research before conducting the R&D work?	√		
5		Key resource advantages	What resources did company use to support the R&D of this brand? Compared with its competitors, which resource do you think is the key that enables a brand to obtain competitive advantage?	√		
6	Performance	Financial performance	Please briefly introduce the main profit models of this brand/the store you managed and how well it has performed so far?	√	√	√
7		Standard control capability	Please briefly introduce the positioning of this brand that you understand, like target audience, grade, service features?	√	√	√
8		Environmental adaptability	The COVD-19 pandemic has had an impact on the entire industry and brought about changes in the market. According to your understanding, what iterations have been made for the brand here to adapt to the new environment? What was the effect?	√	√	√

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APPENDIX B: PROFILE OF INTERVIEWEES

No.	Company	Sample code	Interviewee roles	Interviewees code	Duration
1	Investor company	B, F	Hotel investor	X1	36 min 45 s
2		C		X2	48 min 14 s
3		G		X3	12 min 50 s
4		E, G		X4	10 min 5 s
5		E		X5	08 min 45 s
6	Designer company	/	Hotel designer	S1	26 min 58 s
7		C, G		S2	35 min 57 s
8		/		S3	35 min 57 s
9	Hotel management company	A	R&D staff of the sample brand	A1	28 min 20 s
10			Business develop manager of the sample brand	A2	17 min 3 s
11			Hotel general manager of the sample brand	A3	17 min 18 s
12		B	R&D staff of the sample brand	B1	22 min 8 s
13			Business develop manager of the sample brand	B2	07 min 43 s
14			Hotel general manager of the sample brand	B3	17 min 6 s
15		C	R&D staff of the sample brand	C1	23 min 3 s
16			Business develop manager of the sample brand	C2	14 min 59 s
17			Hotel general manager of the sample brand	C3	13 min 16 s
18		D	R&D staff of the sample brand	D1	43 min 43 s
19		E	R&D staff of the sample brand	E1	41 min 34 s
20			Business develop manager of the sample brand	E2	31 min 23 s
21			Hotel general manager of the sample brand	E3	15 min 6 s
22		F	R&D staff of the sample brand	F1	50 min 52 s
23			Business develop manager of the sample brand	F2	16 min 12 s
24			Hotel general manager of the sample brand	F3	10 min 35 s
25		G	Business develop manager of the sample brand	G2	10 min 41 s
26			Hotel general manager of the sample brand	G3	15 min 9 s

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APPENDIX C: SIX ATTRIBUTES OF THE R&D COMPETITIVE POSITION MATRIX

		Attributes			Scoring rules				
No.	Item	Name	Code	Content	1	2	3	4	5
1	R&D relative resource cost	Fund	FD	Initial amount of funds invested	<RMB 10 million	RMB 11–50 million	RMB 51–100 million	RMB 101–500 million	>500 million
2		Talent	TT	Initial professional talents or professional system support for the team	CEO operating technical support branding	CEO operating technical support branding business develop	CEO operating technical support business develop branding marketing (with membership)	CEO operating technical support business develop branding marketing (with membership) purchasing	CEO operating technical support business develop branding marketing (with membership) purchasing other
3		Company-owned hotel	CH	Number of the company-owned hotels	<10	11–30	31–50	51–100	>100
4	R&D relative resource performance	Growth ability	GR	Number of hotels opened within 2 years after the opening of the brand's first hotel	<10	11–30	31–50	51–80	>80
5		Resilience	RE	The change range in the number of hotels during the COVID-19	<50%	51%–100%	101%–200%	201%–300%	>300%
		Premium ability	PA-1	The range sample increased their ADR during peak seasons	<80%	81%–120%	121%–160%	161%–200%	>200%
			PA-2	The range this sample exceeded in the competitive market and in overall daily ADR	<−20%	−20%–−11%	−10%–10%	11%–20%	>20%

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APPENDIX D: ATTRIBUTES' SCORE OF SEVEN SAMPLES & OVERALL MARKET

		R&D relative resource cost				R&D relative resource performance			
No.	Sample code	Fund	Talent	Company-owned hotel	Total cost	Growth rate	Resilience	Premium ability	Total performance
1	A	1.00	5.00	1.00	7.00	1.00	1.00	3.00	5.00
2	B	2.00	4.00	1.00	7.00	2.00	5.00	2.50	9.50
3	C	5.00	5.00	3.00	13.00	3.00	3.00	4.00	10.00
4	D	2.00	1.00	1.00	4.00	1.00	1.00	2.50	4.50
5	E	4.00	1.00	4.00	9.00	1.00	2.00	3.50	6.50
6	F	1.00	5.00	1.00	7.00	5.00	2.00	4.50	11.50
7	G	1.00	5.00	5.00	11.00	3.00	2.00	3.50	8.50
Overall	O	3.18	3.07	2.96	9.21	3.5	3.31	3.37	10.18

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