## **Case Document**

## **A Bed in a Box: Joining the Direct-to-Consumer Mattress Movement**

Your team has been engaged to do analytical consulting for Best Rest, Inc., a leading brand of bedding products. Best Rest’s product line includes sheets, blankets, comforters, duvet covers, and related products. The brand, which is sold online and through premium home retailers, has a reputation for high quality products that help you sleep more comfortably. The vast majority of Best Rest bedding sales are domestic, and the company estimates that 17% of US households own at least one Best Rest product. Your analysis will, therefore, focus on the US market.

Best Rest has been offered the opportunity to acquire a start-up company in the Direct-to-Consumer Mattress (DCM) market. The start-up, Sleep Cool, has developed a mattress using promising new cooling technologies. Best Rest does not currently offer any mattresses, but is interested in entering the DCM market using the Best Rest brand name. It would be highly unusual for a company in the bedding market to extend its product line to include mattresses. It is much more common for DCM companies, such as Casper, to extend their product lines to include bedding products such as sheets, pillows, and blankets. [citation: “Casper Disrupted a $29 Billion Industry. Now, Its Business Model Is Getting a Complete Makeover,” [Cameron Albert-Deitch](https://www.inc.com/author/cameron-albert-deitch), *Inc.*, Dec 1, 2017, accessed Jan 21, 2019, https://www.inc.com/cameron-albert-deitch/casper-2017-company-of-the-year-nominee.html]

The goal of this consulting engagement is to use your knowledge of data analysis to assist Best Rest in developing a business case for the acquisition of Sleep Cool. That business case will then be used for financial analysis, valuation, and ultimately to make the acquisition decision. The business case will be based on your analysis of three studies: [i] a third-party study of the mattress industry, [ii] a study conducted by Sleep Cool to gather feedback about their mattress, and [iii] a Best Rest brand study designed to determine the value of extending the brand to the DCM market.

The deliverable of your consulting engagement is a presentation for the Best Rest Insights Manager, in which you will identify actionable insights from the three studies and supporting articles. It is important to ensure that each of your presentation addresses the specific research questions in the assignment.

**Sleep Cool**

Best Rest’s acquisition target, Sleep Cool, was founded by a team of mattress industry manufacturing and R&D veterans. Their vision was to develop a cooler, more comfortable mattress by leveraging leading edge materials and manufacturing processes. After creating and testing several prototypes, the team settled on a mattress that evidence suggests is demonstrably cooler and promotes better sleep than the leading mattresses in the industry. This mattress employs a combination of cooling technologies, including phase change materials and layers of uniquely air permeable foams, infused with graphite and copper. Sleep Cool’s team is convinced that the resources and brand reputation of Best Help would enable the successful launch of this innovative new mattress in the increasingly competitive DCM market.

**Mattress Market Overview**

The total market for mattresses, which includes DCM, was $8.8 billion wholesale and $14.9 billion in retail sales in 2018 [source: IBISWorld 2018 Mattress Manufacturing Industry Report].[1] Two companies dominated the market—[Serta Simmons Bedding](http://www.sertasimmons.com/) LLC and [Tempur Sealy International](http://www.tempursealy.com/) Inc. Serta Simmons, with its Beautyrest, Beautyrest Black, Beauty Sleep ComforPedic, and NuFlex Foundation brands, has 33% market share. Tempur Sealy, with its Tempur-Pedic, Temper, Sealy, Posturepedic, and Stearns and Foster brands, has 28% market share. [source: IBISWorld 2018 Mattress Manufacturing Industry Report] The large majority of these mattresses brands offer traditional innerspring construction, in which a bed of steel springs is topped with a softer, padded cover. The Tempur-pedic brand, on the other hand, offers only memory foam mattresses using technology originally developed by NASA for space travel. Its mattresses are known for their pressure relief and comfort, but they are also known to sleep ‘hot,’ a common complaint about memory foam. The retail price of Tempur-pedic mattresses is from $2499 to $4999, making it uniformly more expensive than DCM offerings.

Mattresses not sold directly to the consumers were distributed through a variety of retailers. In 2018 specialty bedding stores, led by Mattress Firm and Sleepy’s, accounted for 31.3% of sales; furniture stores accounted for 27.8%; general retailers, including department stores and discount stores, accounted for another 15.5%. Interestingly, 6.4% of mattress sales were made to hotels and motels. [source: IBISWorld 2018 Mattress Manufacturing Industry Report]

**Direct-to-Consumer Mattress (DCM) Market**

DCM is an example of how online shopping can bring innovation to a mature market—mattresses, in this case. DCM refers to a fundamentally different type of mattress, in addition to the online shopping experience and distribution process. The DCM is alternatively called the “online,” “online only,” or “bed-in-a-box” mattress. As the name suggests, DCM companies sell to consumers via the company’s website and ships products directly to customer’s home.[2]

“While Casper [*the leading firm in the market when this article was published*] gets a lot of the credit for the concept, the bed-in-a-box was actually invented by a machinist from Johnson City, Tenn., in 2007, seven years before Casper launched. Bill Bradley, founder and CEO of Bed in a Box, built a machine that could compress and roll foam mattresses to a size small enough to fit in a shipping box. He trademarked the name and ran with it.” [citation: “Is a Bed-in-a-Box Right for You?” Mary H.J. Farrell, Consumer Reports, Jan 1, 2018, accessed Jan 21, 2019, https://www.consumerreports.org/mattresses/is-a-bed-in-a-box-right-for-you/] From 2016 to 2017, the DCM share of the total mattress market doubled from 5% to 10% [citation: “Why Tech is Targeting the $15 Billion Mattress Market,” Jeff Desjardins, The Visual Capitalist, Jan. 11, 2018, accessed Jan 21, 2019, https://www.visualcapitalist.com/tech-targeting-15-billion-mattress-market/], then nearly doubled again in 2018. By 2018, the number of companies in the DCM market had risen to nearly 200. Seeing the rapid growth of the DCM market, Tempur Sealy introduced the Cocoon by Sealy brand, which is also packed and shipped in a box.

Before DCM, better mattresses were almost exclusively innerspring construction.[3] Innerspring mattresses must be stored in large, flat boxes, making storage and delivery relatively expensive. But innovations in design and manufacturing allowed for a new type of mattress that can be compressed, rolled, and stored in a much smaller box, making storage and delivery cheaper. The first DCMs were constructed entirely of foams, with viscoelastic memory foams providing a soft feel and improved pressure relief.[4] On the other hand, these softer foam mattresses generally offered sleepers less back support and slept hotter than innerspring mattresses. DCMs continue to feature soft foams, but newer designs have addressed support and cooling problems. Recent innovations have included [i] layering foams of different types, densities, and firmnesses, [ii] aerating or creating channels in the foam to facilitate air flow, [iii] adding a layer of individually-pocketed coil springs to the foam, creating a “hybrid” construction, [iv] infusing foams with gels or metals (e.g., copper, graphite) to facilitate heat transfer, and [v] incorporating phase change materials onto the foams and into the mattress covers to regulate sleeping temperature. These design innovations, together with manufacturing improvements, scale efficiencies, and the growth of internet shopping, have led to the rapid rise of the DCM market.

By 2018, several mattress manufacturers had invested in compression and rolling equipment to produce DCMs.[5] Though this equipment was relatively costly, there should be sufficient manufacturing capacity available to support Best Rest’s entry the DCM market.

For more details about the DCM market, including size, competition, and relevant factors, see the article “[Why Tech is Targeting the $15 Billion Mattress Market](https://www.visualcapitalist.com/tech-targeting-15-billion-mattress-market/).” [citation: “Why Tech is Targeting the $15 Billion Mattress Market,” Jeff Desjardins, The Visual Capitalist, Jan. 11, 2018, accessed Jan 21, 2019, https://www.visualcapitalist.com/tech-targeting-15-billion-mattress-market/]

**Direct-to-Consumer Mattress (DCM) Customers**

“‘The model of distribution for sleep products is changing rapidly,’ says Jerry Epperson, managing director of Richmond, Virginia-based investment banking firm Mann, Armistead & Epperson Ltd., about the trend. ‘In the past, the consumer would walk into a store, make a purchase and arrange for delivery. Now, they can conduct the entire transaction at home in their pajamas using a computer or phone. They never have to even enter a store, and the mattress will arrive at their doorstep in just a few days.’” [citation: “Casper Disrupted a $29 Billion Industry. Now, Its Business Model Is Getting a Complete Makeover,” [Cameron Albert-Deitch](https://www.inc.com/author/cameron-albert-deitch), *Inc.*, Dec 1, 2017, accessed Jan 21, 2019, https://www.inc.com/cameron-albert-deitch/casper-2017-company-of-the-year-nominee.html]

In 2018, DCM purchasers tended to be young, with an average age of 31. In other words, DCM buyers were more likely to be Millennials and Gen Z. Household incomes of DCM purchasers were slightly below the to the US median of $62 thousand. The racial composition of DCM purchasers skewed non-white compared to the US population, though the majority of DCMs were bought by white customers.

From the standpoint of the mattress buyer, there are benefits and drawbacks to DCM. Most importantly, consumers can’t try before they buy. DCMs are not available in mattress stores or showrooms, furniture or department stores, so consumers can’t examine them or lay on them.[6] DCMs are shipped from the manufacturing facility or distribution center to the consumer’s home. Recognizing the uncertainty that their business model creates for customers, DCMs offer generous trial and warranty policies. The industry standard is a 100-120 day trial period. If, any point during that period, the consumer decides that they do not want the mattress, they can return it (or, in some cases, donate it to charity) and receive a full refund. In most cases, the consumer would not have to pay for return shipping. In many ways, a long trial period is more informative for customers than a few minutes spent laying on a mattress in the store. Moreover, despite these generous trial and return shipping policies, Consumer Reports finds that the DCM return rate is only 7%. [citation: “Is a Bed-in-a-Box Right for You?” Mary H.J. Farrell, Consumer Reports, Jan 1, 2018, accessed Jan 21, 2019, https://www.consumerreports.org/mattresses/is-a-bed-in-a-box-right-for-you/] Most DCM manufacturers also offer at least a 10-year warranty against manufacturer defects, in line with better innerspring mattress manufacturers. [Consumer Reports](https://www.consumerreports.org/mattresses/is-a-bed-in-a-box-right-for-you/) provides more detail about the benefits and drawbacks of DCM for mattress buyers.

**Research Studies**

For this case, you will analyze data compiled in three different research studies: [i] an analysis of the mattress industry, [ii] a research study of Sleep Cool’s mattress, and [iii] an “in-house” study of the Best Rest brand and its value for the DCM market.

***Mattress Industry Analysis***

The first study is an analysis of the mattress industry from Mintel, a global market research and insights provider. The analysis includes information about mattress ownership and purchase intention, the reasons why people purchase mattress purchases, the purchase influences, the factors that affect purchases, the outlets where mattresses are purchased, and store vs. online purchase. This study was not compiled for Best Rest or for this project; rather, it is a general industry analysis available to all Mintel subscribers. This study is based on a sample of 1,500 adults who use the internet.

***Sleep Cool Study***

As they developed mattress prototypes, Sleep Cool’s product team measured their cooling and sleeping properties. According to one member of the product team, Sleep Cool recruited “an army of sleep testers” to gather performance data for their mattress prototypes—147 of whom tested the final design. Specifically, the product team used sensors to measure the temperature of the mattress after a 7-hour period, simulating the time immediately before waking (i.e., at the end of the sleep cycle). They also used sleep monitoring equipment to record the number of minutes of “deep” sleep and the number of minutes awake during the 7-hour period—more minutes of “deep” sleep is better; more time awake is worse. After sleeping on the mattress, subjects in the study were asked questions about their perceptions of comfort and other important attributes of the mattress. For comparison, sleep subjects went through the same testing process for the leading “bed-in-a box” brand, Casper, and for the leading memory foam mattress brand, Tempur-pedic. Results of the Sleep Cool study are in the Excel file *sleep\_cool\_study.xlsx*.

***Best Help Brand Study***

The third study was conducted for Best Help to assess the value of its brand for the DCM market. An online sample of 600 adults, 300 of whom owned Best Rest products and 300 of whom did not, were recruited for this study. Focusing on subjects who had purchased a mattress within the last five years and/or intended to purchase a mattress in the following year, the study elicited information about the Best Rest brand and online mattress purchase intentions. Of particular importance, this study compares Best Rest customers and non-customers, along with some basic demographics, to help determine how the company should target marketing and communications for the new mattress.

**Analyzing the Data**

Your analysis should be limited to the data in the three studies, along with facts presented here and in the sources hyperlinked to this case. You may want to make assumptions when conducting your analysis; if so, you should justify any assumptions you make. Your presentation, and the analyses you choose to include, should “tell the story” of the data. That doesn’t mean that every analysis will lead to the same conclusion! The data may tell multiple, sometimes conflicting stories. If so, you should report the conflicts. That story must address all of the managers’ questions, and inform the business case that those managers will create.

Good Luck!

[1] Note that 17.3% of sales were for foundations and bases (such as box springs), the remainder was for actual mattresses. [source: IBISWorld 2018 Mattress Manufacturing Industry Report]

[2] As of January, 2019, a small number of DCM companies were selling through Amazon marketplace in addition to their own websites. Unique among DCM companies, Casper had opened several “brick-and-mortar” retailer stores.

[3] For some more expensive innerspring mattresses, a “pillow top” offers a softer, plusher feel.

[4] Many people, particularly those who sleep primarily on their side, experience shoulder or hip pain because their mattresses don’t conform well to their bodies. Pressure relieving foams, in particular viscoelastic memory foams, relieve pressure better than materials used previously.

[5] For more detail about the manufacture of DCMs, see this [Milwaukee Journal Sentinel article, with video](https://www.usatoday.com/story/money/business/2017/05/08/online-sales-boom-mattresses-squished-into-boxes/101409446/) (c.f. USAToday). [citation: “Online Sales Boom for Mattresses Squished into Boxes,” [Rick](https://www.inc.com/author/cameron-albert-deitch) Rommel, *Milwaukee Journal Sentinal*, May 8, 2017, accessed Jan 25, 2019, https://www.usatoday.com/story/money/business/2017/05/08/online-sales-boom-mattresses-squished-into-boxes/101409446/]

[6] Purple Innovation, Inc. is an exception, offering mattresses in selected Mattress Firm stores. [citation: “Bed-in-a-Box Mattress Market Expanding,” Sarah Houlton, *Rubber & Plastics News*, May 16, 2018, accessed Jan 25, 2019, https://www.rubbernews.com/article/20180516/NEWS/180519956/bed-in-a-box-mattress-market-expanding]