

# DRIVING GROWTH IN THE DIGITAL WORLD

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For a vast majority of companies in the world, all revenues come from their products. These could be physical products, like mattresses, or services like insurance. Consequently, these companies also rely primarily on product-driven growth. They strive to expand product market shares, develop new products, or diversify into new product areas through acquisitions. The modern digital world however offers a new dimension for growth that is data-driven. Companies that avail of this opportunity can expand their revenue base such that their revenues come not just from their products but also from data.

Consider these two examples of companies that have expanded their revenue base from products to data. One of them is Sleep Number whose smart mattresses use sensors to gather data on customers' heart rates and breathing patterns allowing them to track sleep quality. Sensor data and its insights help the company provide new subscription-based data-driven services that alert users of chronic sleep issues such as sleep apnea or restless-leg syndrome. Through such data-driven services, Sleep Number has expanded its business scope from being a mattress producer to a wellness provider. More importantly, its revenue growth opportunities are no longer restricted to increments in mattress sales; they now also include an escalating set of data-driven services. Similarly, HSB a Canadian Insurance company is using sensors and IoT to generate new data-driven services that alert homeowners of freezing pipes and help them avoid costly damage. As a result, their business models are also shifting from the traditional damage compensation to new damage prevention. Their

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revenue growth as a result is not restricted to traditional expansion of policy holders but also include establishing new subscription services from them for assuring damage prevention.

Similar opportunities to jump start new revenue streams with the help of data are available to many corporations across different a vast array of sectors – whether product or service businesses; B2C or B2B applications. Availing these opportunities of course requires new business models. Underlying these new business models are two important inputs: one, a new understanding of data; and two, envisioning how to harness the power of data in new digital ecosystems. Each is described below.

### **A new Understanding of Data: From Episodic to Interactive**

Most firms rely on episodic data to run their businesses. This data is generated by discrete events, such as the sale of each mattress. Interactive data on the other hand, is continuously streamed through sensors, such as data on a smart mattress user's heart rate and breathing described earlier, for the entire time the mattress is being used. Episodic data certainly has its value. However, it is interactive data that is behind the explosive rise in opportunities for firms to generate new streams of revenue.

Episodic data's value stems primarily from aggregation. Several discrete events of mattress sales for example, are aggregated and then analyzed after-the-fact. Such analysis provides many useful insights: such as, how many mattresses were sold in a month; what was its regional breakdown; was their inventory adequate; how well did suppliers meet requisite demand. And so on. Interactive data on the other hand comes from pinpointed sources – such as, that of each individual mattress user. The insights gleaned on sleep quality or health are also specific to each individual customer. Interactive data hence makes it possible to offer powerful and useful data-driven services that are personalized for everyone.

Another important way interactive data is different from episodic data, is that it can be shared in real time. At the precise time a user has restful sleep, the mattress can communicate with an array of other IoT devices in the room and say, shut off the TV, lights, or close blinds – that further enhance sleep quality. Sensors on pipes similarly can communicate with faucets to turn on hot water at the precise time it senses a danger of freezing. All such additional features empowered by interactive data enhances new revenue creating and growth avenues. These are not possible with episodic data.

More fundamentally, the primary value of episodic data is to support products. Interactive data reverses that relationship.

Products now support interactive data by becoming conduits to collect them and thereby generate a new class of revenue generating services.

### **Harnessing the Power of Interactive data in new Digital Ecosystems**

Digital ecosystems are networks of data generators and recipients. They can amplify the power of interactive data. Think of how digital platforms like Uber and Airbnb amplify the power of their interactive data by expanding their networks of drivers/riders or landlords/renters. Product companies that are not digital platforms can also build digital ecosystems tailored to their business models. One way is by transforming their value chain infrastructures into data generating and sharing networks with the help of sensors and IoT. These are production ecosystems, or digital networks that can improve how firms produce and sell goods.

Caterpillar for example tracks data on the wear and tear of their equipment to predict likely component failures and offer predictive maintenance services for new revenue streams. Similarly, the contours of Sleep Number mattresses adapt in real time as it senses sleep quality to ensure continued restful sleep. Sleep Number can offer such an added revenue-generating feature by generating and sharing data between its products, analytics centers, digital centers, and other parts of its smart value chain. More broadly, operations, R&D, product development, marketing, sales, and after-sales service units – if digitally connected to receive, analyze, generate, share, and react to sensor and IoT data – can turn value chains into production ecosystems.

A second way is to go beyond a firm's value chain infrastructure and harness the power of connected third-party assets and entities that complement a product's use. These are consumption ecosystems, or digital networks that expand the ways a firm's products are consumed. Smart toothbrushes engage with new consumption ecosystems when they connect their users to a network of dentists when cavities are predicted; smart inhalers (used to manage asthma) similarly expand into consumption ecosystems, when connecting users to third party entities that track environmental allergens and warn a user before they trigger an asthmatic attack. Smart mattresses connecting to IoT objects such as TVs, lights or blinds described earlier, also engage with new consumption ecosystems.

Consumption ecosystems expand a firm's business scope beyond what is defined by their traditional value chains. They also drive new revenue streams in that process. Doing so however requires recognizing a new set of IoT connected complementary entities by which their product's features are expanded through interactive data. It also entails operating as

digital platforms, facilitating exchanges among product users and third-party entities, just as how Uber does with drivers and riders.

### Concluding thoughts

Modern digital technologies offer game changing opportunities for companies to transform their business models and expand their revenue generating opportunities from products to data. Doing so comes with some important responsibilities – none more important than ethically managing and sharing interactive data. For most of us privacy is a huge concern. Yet, we are prepared to share data if we get value in return, and we have the assurance that our trust is not abused. There is value in being alerted to health issues by a smart mattress; however, the

expectation also is that our data is protected and used ethically. This is something product companies must always keep in mind.

The digital future has already arrived for product companies. It is time to act and harness the new opportunities for growth that it provides. ■

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