

The Challenges And Teachings Of The World's Biggest Technology Companies

The technology industry seems to have plenty of growth opportunities. More Middle East organizations are adopting cloud computing, while the Internet of Things (IoT, the network of connected devices) is altering the face of business. Yesterday's science fiction is becoming today's business reality, whether in the form of drones, autonomous trucks, virtual reality, or digital assistants. The massive growth in demand for digital technology does not, however, on its own mean secure profits for technology firms.

This poses different challenges to the three groups of companies that dominate technology. These are the "Big Five" (Google, Amazon, Apple, Facebook, and Microsoft), the "Next 20" (U.S.-based technology firms), and the five Chinese challengers (Alibaba, Baidu, Huawei, JD.com, and Tencent).

Although each group of technology companies needs to take a different approach to succeed, all winning strategies will have some common features. They will be built upon a distinct strategic identity and the differentiated capabilities that turn strategy into effective business models, and a coherent portfolio of platforms, products and services. All of this will be backed by committed and focused investment. The old approach, of knowing what customers want and providing it, will no longer suffice.

The importance of such an approach is apparent from the dominance of the Big Five. These firms have four main attributes. First is the strength and ubiquity of their platforms, which has resulted in rising revenues since 2011 and plenty of cash on hand. Second is the continual investment of a large part of their profits in innovation—\$44 billion per year on average since 2011. Such investment can have surprising results, a symptom of the unpredictable nature of the technology business. Amazon successfully entered and took 70% of the public cloud infrastructure market with Amazon Web Services, even though cloud computing is not immediately adjacent to its consumer focused e-commerce. Third is an active and methodical acquisition strategy, often of small and medium-sized firms that add to the Big Five's capabilities in artificial intelligence, machine learning, virtual and augmented reality. These acquisitions of other firms put the Big Five in a strong position with regard to new disruptive technologies. Fourth is that the Big Five hire many talented individuals—generating a remarkable 418,000 new jobs since 2011.

By contrast, the Next 20 need to change. They have shed 40,900 jobs and lost revenues since 2011. Some, such as IBM, are seeking growth from artificial intelligence, while Adobe is selling cloud products, and Texas Instruments is pursuing analog chips for sensors and video for cars and industries. The IoT and its growing volume of devices is tempting—the research firm Gartner forecasts that globally there will be 20 billion devices linked to the Internet by 2020, up from 6.5 billion in 2016. Still, these firms have to be careful. IoT, for example, does not necessarily mean more profitable business.

For companies without sufficient scale, IoT could mean competing for increasingly

commoditized business and thin margins. What the Next 20 therefore must do is alter their operating models and cost bases, reconfigure their workforces toward creating new capabilities, and move to software “as-a-service” (which sells online or through subscriptions rather than through direct sales). They need clearer strategic identities, but preferably ones that do not pit them against the Big Five.

The challengers from China are the fastest growing technology companies globally. However, they are beneficiaries of a protected home market and have won market share through being cheaper. As they come up against the Big Five, they will need to develop the innovation, products and services, and business models to compete globally. Already they are increasing spending on innovation at the same pace as the Big Five, 24% per annum from 2011-2016.

Whether the Chinese can displace the Big Five, or the Next 20 can reverse their decline, will depend on a mixture of scale, focus, and distinct capabilities. As technology penetrates every corner of daily life and every organization, the opportunities are large, but so are the risks.

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