

# Emerging technologies and the future of business with Professor Soumen Ghosh

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Organisations wanting to retain their competitive advantage amidst a myriad of disruptive entrants must evaluate new technologies and decide which would enhance their effectiveness.

Professor Soumen Ghosh, professor of operations and supply chain management in the Scheller College of Business at Georgia Institute of Technology, told a Gordon Institute of Business Science (GIBS) forum that companies should evaluate technologies on their own merits. Emerging tools such as mobile devices, the Internet of Things, 3-D printing, big data analytics and cloud computing must be analysed individually.

“Organisations have to see the role of technology for its ability to provide differentiation and customisation, and not attempt to integrate technology for its own sake.”

Successful disruptors are those which are able to match an existing product or company’s differentiated proposition, but at a lower cost. They are then able to push the competitive frontier forward.

“Technology is enabling disruption and can create competitive advantage almost overnight,” Ghosh explained.

## **Supply chain reinvention**

Consumer demand, led by the proliferation of smartphones and technology, had created a fundamental shift from the physical supply chain to what Ghosh termed “collaborative digital supply networks.” The linear, traditional supply chain is dead, he added.

This “front-end flip in the supply chain”, enabled by technology, represents a major change, as manufacturers no longer need to hold inventory. By having a real-time picture of customer demand, manufacturers and distributors are able to supply according to need.

Integration of new technologies and the ability to successfully and efficiently execute the new digital supply chain would ultimately determine the retention of future competitive advantage.

## **Consumer-led disruption**

Much of the disruption experienced by customer-centric industries such as transport, retail and hospitality has been generated by consumers’ use of technology, driven by mobile devices and smart phones, Ghosh said.

Consumers are using technology in unexpected ways and have become the driving force that has compelled businesses to rethink how they can package and deliver their products to consumers. Ghosh used the example of Uber’s on-demand transportation model, or Amazon’s “fulfillment centres” with same-day grocery delivery to illustrate this.

“Smartphone technology has fundamentally changed consumer behaviour, and consumers are now using digital devices to create demand.”

There has been a rapid and dramatic change in consumer behaviour and preferences as the millennial generation has gained ever-greater purchasing power. This new generation demands alternative ways for goods to be delivered and presented to them, which may see the eventual demise of brick-and-mortar retail stores. The onus is on companies to use

technology to meet customer demands and consumer preferences, Ghosh explained.

Consumers now expect ever-higher levels of differentiation, at a lower cost. “The demand for customisation or differentiation is increasing exponentially,” Ghosh said. However, the burden this places on companies to keep costs under control and to maintain sufficient supply chains is a huge challenge.

The cost of doing business is under pressure due to the demand for constant product variety.

Consumer demands that companies have to satisfy now include speed, accuracy, cost, responsiveness and differentiation or customisation. “Companies have to fulfill these, or the customer will find someone else who does. There is very little to no loyalty with today’s consumer,” Ghosh said.

Organisations that are able to successfully respond to additional customer demands are completely interactive, always on, create a connected community and employ intelligent optimisation and end-to-end transparency.

Very few established companies would exist in their current format in the near future, Ghosh said, as they will be forced to reinvent themselves in order to survive the onslaught from new disruptors. “The younger generation can think about these things with more clarity. Established organisations are stuck with old paradigms.”

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