

# Impact of Systems Innovation

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BY SANJIV NARANG



**I**nnovation has caught people's imagination, and, most people recognize its value. Even Schumpeter, the noted economist, recognized the value of innovation for economic development. However, what do people refer to when they converse about innovation? They usually refer to product innovation. Systems innovation has never been at the forefront of the battle for innovation. It has always remained a poor country cousin to product innovation led by technological innovation. And, while that remains as the dominant perception, it is unfounded.

Systems innovation, arguably, has a bigger impact on user needs as compared to product innovation, because it caters to a larger user segment. The number of people affected by systems is significantly larger than the number of people affected by product innovation. Systems are also bigger than individuals and carry an inertia about them. No matter what leadership

changes are made, the system persists, and, the output of the system does not seem to change, no matter what the leader does. After all the pomp, show, and bluster from the ramps, the output of the economic system has to ultimately change in the matters of income, output, and employment. The output of the system will not change if a change in strategy does not cascade into a systemic change.

## What is systems innovation?

So, what is systems innovation, and, what is the likely impact of systems innovation or the lack of it?

Let us look at a few examples and see whether systems innovation is worth the effort. Amazon is the benchmark for systems innovation. It has transformed the shopping landscape. It utilized eCommerce and cloud computing for designing an online shopping system which has revolutionised the very shopping experience. Amazon commenced its operations in the year 1994, and, the market capitalization of Amazon surpassed that of Walmart in 2015. It took 21 years to reach the aforementioned level of success, and, made Jeff Bezos, the founder, the richest man in the world. How did this happen? The cause behind such an effect is systems innovation.

ERP systems such as SAP have revolutionized organisational processes and enhanced the efficiency and effectiveness of organisational systems. Large organisations in the current economic context would be unable to function without these system innovations. Uber and Ola exemplify system innovations and have taken the world of transportation by storm. The phenomenon

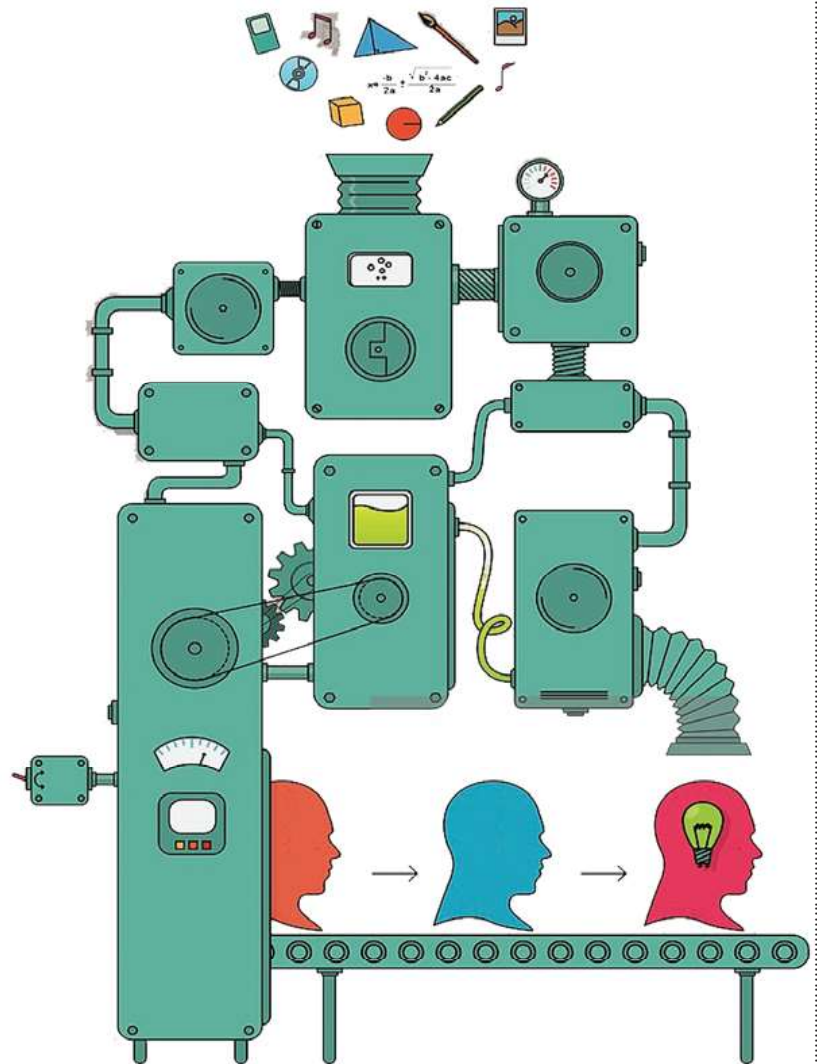


of hiring taxis at railway stations, which was previously a nightmare, has been replaced by a transparent and customer-focused system. And, it is the customer who has gained substantially. Teenagers utilize Uber and Ola for even getting dropped to school, which was not the case with the erstwhile taxi system. Additional services such as the ability to track the vehicle on WhatsApp has resulted in enhanced customer value and an enhanced sense of security. Thus, on a cost benefit basis, systems innovation creates new value for the customers. The system of filing income tax returns online is another example of a systems innovation which has had a sweeping impact. This has created new value for the assesses in terms of convenience and transparency. Thus, systems innovation is not only useful for organisations, it is useful for the consumer as well as the economy. How does one go about enabling systems innovation? For one, it is essential to develop the competency of systems thinking among professionals. Without a systems perspective, the solutions designed are short term and therefore, redundant.

For example, one day, I found that there was no water in my kitchen tap. When I checked the water level on the roof tank, I found that it was half full. Hence, I checked the pipe line assuming a leakage, but did not find any. Now, replacing the tap alone would not get me water. On mapping the system, we found out that we have not perceived a critical element of the system, i.e. the outlet for exiting the air trapped in the pipe which should be exiting the air. And, it was not working because the angle of the pipe from the water tank to the joint was not parallel to the roof. Therefore, the solution was to put a brick below the pipe in order to make the pipe parallel to the roof. This resulted in the air exiting from the system and for the water to flow. This solution exemplifies the need for systems competence in order to create lasting solutions to the problems around us. In fact, without systems thinking, the solutions designed are short term and only patchy.

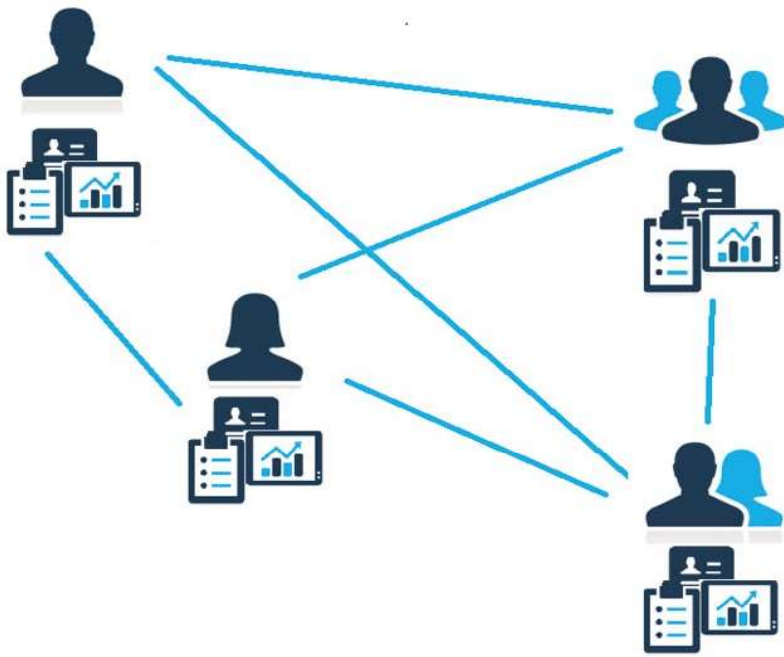
### Impact of competency gap

What is the impact of this competency gap related to systems thinking and systems innovation? We see the impact of the competency gap each time the roads go bad with potholes ever visible year after year during the rainy season. Every year, the urban areas get flooded in Mumbai and



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Chennai. Such problems do not get solved because there is no systems thinking and systems innovation. Unless the water drainage system is mapped and innovated upon, we stand to be trapped in an endless system of tragedies along with a sense of hopelessness. The lack of systems innovation results in an endless waste of scarce resources.



We see the impact of this competency gap in the system of resolving consumer disputes as per the Consumer Protection Act. The court procedure followed by the consumer disputes redressal forum is predominantly The Civil Procedure Code, 1908. The system is more or less the same as the civil cases. And, the impact is that even during instances of open and shut cases, it takes three years for the final verdict. Is it logical for the consumer to wait three years and make multiple visits to

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the consumer court for getting a measly compensation of 50,000/-? Thus, the system is working in a manner that the laudable objectives of the Consumer Protection Act are not achieved. Again, as per the Consumer Protection Act, the court can devise its own court procedure. Thus, there is a greater need for systems innovation in the context of consumer dispute resolution. Otherwise, the rule of law vis-a-vis consumers is threatened.

### Demonetization: Ineffective use of systems innovation

Let us examine the case of demonetization from a systems perspective. Demonetization was an innovative strategy to unearth black money. Currency of specific denominations, a key element of the economic system was withdrawn. Its replacement took a long time, resulting in a slowdown of the economic system. The economic slowdown could have been avoided if systems innovation was part of the execution strategy of demonetization. The earlier system was calibrated to dispense the 500 and 1000 Rupee notes and the new 500 Rupee notes were of a different size. Hence, the ATMs had to be recalibrated. With the ATMs not working, the entire pressure was on the tellers in the bank branches resulting in serpentine queues. Such recalibration of the ATMs was a mammoth task and took a long time. Thus, the entire financial system slowed down, and, had a cascading impact on the economy. The negative impact of demonetization could have been avoided if systems innovation had taken place in alignment with the execution of the demonetization strategy. The transition to a digital financial economy was slow. The users were not ready for the transition. The slow transition to a digital economy along with the leaks in the old financial system, which was based on cash flow, wiped out the benefits of the innovative strategy. It was a bold experiment. The benefits would have been far reaching if systems innovation was a part of the execution strategy.

We have grown up hearing "one cannot fight the system because the system owns the power to crush you." Such comments are true if we continuously attempt to change the system output without changing any element. Systems innovation by way of challenging the elements of the system, and thereby redesigning it, can enable us to change the system forever. **HC**

#### About the Author

**Sanjiv Narang** is an author and a corporate trainer in the area of Innovation. He is the author of the book, "Innovation, why, what and how." He has conducted innovation workshops and interventions for over 100 companies in public, private and government sectors. He is an AIMA Certified Trainer(ACT). He can be contacted at sanjiv@innovativetraining4u.com.