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Is the SEP, FRAND debate a battle of diverse business models?

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In the 1990s, the Global System for Mobile (GSM) communications standard became ubiquitous after the EU passed a legislation in 1987 to mandate the standard throughout Europe. Initially, the developers of GSM technology were the sole manufacturers and this elite group, including Siemens, Ericsson, Motorola and Nokia, chose not to license the GSM technology to anyone outside this exclusive group. Instead, they cross-licensed their patent portfolios to each other.

The implications were that phones started to command a very high price due to concentration of market power (à la static inefficiency). Around the same time, Qualcomm with its CDMA (Code Division Multiple Access) technology adopted a completed different approach. Instead of manufacturing phones by itself, it decided to license out its new patented technologies to those who need them and empowering a host of manufactures in the process. This infused the market with competition, resulting in anexponential decline in prices of both GSM and CDMA phones to the benefit of consumers.

Evolution of 3G and 4G platforms followed in the footsteps of CDMA's business model, with developers of these new and advanced technologies choosing to license them to all sorts of phone manufacturers. The result was an extraordinary drop in prices of 3G and 4G smartphones. The average selling price (ASP) of smartphones worldwide dropped by a staggering 35% from $440 in 2010 to $283 in 2016. In roughly the same period, the fall in ASP in China and India was 12% and 40%, respectively.

This price drop was the real impetus that helped India cross the milestone of one billion mobile subscribers. This is also reflected in the market share of Indian smartphone vendors in the domestic market. While Samsung has a grip on 23% of the market, the combined share of leading Indian sellers, such as Micromax, Intex and Lava, stands at 35%. Micromax is now the third largest handset brand in Russia. Smartphones now seem lucrative even to those consumers who have a significantly high price elasticity of demand.

The functioning of the standard development organizations (SDOs) and their IPR policies, play a key role in maintaining a delicate balance between companies pursuing diverse business models. While 3G and 4G are anchored by ETSI, IEEE is leading the development work for Wi-Fi technologies. Until recently, both SDOs had similar IPR polices. However, recently a small group of companies chose to unilaterally change the IPR policy of IEEE in face of huge opposition from the majority. These changes are bound to slow down (symptoms are already pointing in that direction) technological advancement of Wi-Fi technologies that are crucial for a wide range of sectors.

These changes will adversely affect the licensing business model by unfairly tilting the delicate balance of the “negotiating leverage” in favor of a handful of technology giants that have a sizable control over this standards body.Apart from the fact that it will exponentially decrease the value of patents – the most critical IPR for the industry – it will force innovators at the periphery to curtail R&D expenditure and innovation. Those governing the activities of IEEE stand to gain, just like the GSM players of the 1990s, as they do not have an advertised licensing model of enabling manufacturers to compete in the market.

A recent study on patenting in telecom technologies in India found a total of 23,569 patents (granted & applied) between 2000 and 2015. Out of this, Indian firms accounted for mere 18 applications, with no patent issued so far. Local smartphone sellers, such as Micromax, Karbonn, Intex, Lava and Xolo, account for zero granted or pending patents. This is because these companies are merely assemblers of Semi Knockdown Kits that are imported from China. They virtually have no investments in design and R&D of meaningful technologies, since it is cheaper to import a manufactured PCB (where lies the maximum potential for R&D and design) compared to the finished handset. The PCB attracts a custom duty of 2% compared to a 12.5% duty on a finished handset.

If India decides to align its IPR policy with that of IEEE then the value of IPR will erode drastically and it will extinguish the fire of innovation in the Indian companies, thereby compromising the ideals of “Make in India” and “Design in India”. It will safeguard and sustain the authority of a select group of foreign companies who are currently market leaders in IEEE. Of course, these players can also restrict access to technology and know-how through other mechanisms (such as trade secrets) to appropriate returns to their own innovations but this would result in higher product prices. Not only will this mean ‘harm’ to consumers, it will also be detrimental to the pace of adoption and dissemination of technologies in the long run.

About Dr. Ashish Bharadwaj

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Collaborative R&D pivotal for Indian brands to remain relevant

With MWC coming to an end, we may not have seen any new technology being showcased. However, what we saw was the ramped-up preparation towards 5G.

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