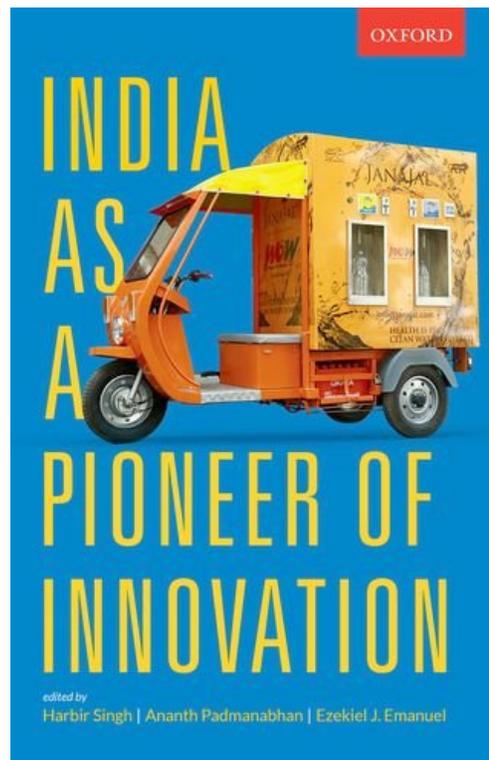


# India as a Pioneer of Innovation



## India as a Pioneer in Innovation, Edited By

**Harbir Singh, Ananth Padmanabhan, & Ezekiel J. Emanuel;** Oxford University Press, New Delhi, 2017,  
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This edited book seeks to examine the plethora of narratives around innovation in India, examining its paradoxes and contradictions, identifying problems and constraints to actualising innovation potential in low-resource settings. They argue for a broader conceptualisation of innovation practices, which is already well-established in the Academic Literature. It is another matter that this definition itself is a key paradox, that even multilateral agencies like the World Bank recognise today (Cirera and Maloney, 2017). Having said that, the theoretical framework is beset with several issues like conflating systemic approaches, as otherwise distinct from the sectoral; failure to distinguish from actor-network accounts and to confront dynamics and finally looking at the discourse arising, if not at generalisation.

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The first two themes of innovation in business and regulatory framework as promoting or limiting innovation fail to allow for that broadening of definition intended earlier, although they do implicate institutional and firm-related actors in a conventional sense, go no further than that. What appears more promising is perhaps innovation in public services and poverty reduction. The regulatory Project is a bit of a non-starter, as it fails to pinpoint exactly, the source of failure of formal institutions in fostering a culture of innovation. It is just positioned with a disdain for regulation, as a constraint to economic activity, which does great injustice to the treatment of institutions. Further, the narrative of conflicting values that innovation incentives bring and their consequent negotiation through legal and regulatory strategies appears far-fetched in this overall discussion. This is so because it does not engage with values underlying each construct, namely innovation incentives seen through the prism of intrinsic and extrinsic motivations to innovate and the conflict of social values surrounding the construction of value, economic or otherwise. More particularly, it fails to identify the embedded values of

regulation, much less those values that it intends to create. It does not place values, coming from within societies as better and efficacious, as opposed to superimposition from above, which forestalls the prospect of such a Project.

The book begins with a familiar ruse about the absence of knowledge on the range and diversity of innovation in modern contemporary India, juxtaposing it with a triumphalist account of innovation in the pre-civilisation era. The author then cuts to the new-found emphasis to Innovations as a means to achieve Inclusive development. Despite the nobility of intentions, the account brings it in context with a provision of public goods in a piecemeal manner, essentially aimed at understanding the barriers to achieving innovative potential. This characterisation has been developed wrongly. His choice of frugal innovation is undoubtedly rooted in this paradigm of inclusivity. But its execution is somewhat hindered by a distinctly urbane worldview about Innovation, understanding of its contours, it's contrasts with a traditional economy of scales paradigm and the numerous manifestations it takes. The author's reliance on models in highly developed economies is the subject of substantial contestation and thus offers little assistance to his Project of embedding frugal Innovation as a plausible alternative. This ends up making an oddity of the idea, like an amoeba of sorts between complicity and compliance. His reference to start-ups, without further qualification, goes against the very grain of intrinsic motivations to innovate, much less the need for an Industrial organisation to foster it. That dealing with everyday provisioning of public services can be relatable to advances made in the formalist interventions is a bit of a self-perpetuating Paradox, the authors would do well to recognise (page xv). The reference to the demographic dividend could have been more critically positioned, considering the authors caution against the optimistic view of innovation (page xiv). Further, the urgency of consequentialism as the justifying bases for shaping roles and responsibilities of multiple actors seems a tad bit fatalist. One would have expected a bolder hypothesis from the author.

While recognising the fact that rational agent characterisation of classical economics doesn't bear out in practice, he proceeds to argue ironically that businesses are a significant source and platform for innovative activity. This is paradoxical as rational decision-making models do not account for the complexity of the innovation decision seen in practice. The actors seemingly compelled to follow a profit model, cannot often structure these decisions on an ex-ante basis, given their risk and uncertainty. Rather than blindly praising the paradigms of technology-led growth that the Developed West has perpetuated, the authors would have done well to recognise that enhancing labour productivity cannot feasibly be pursued in the Indian context, considering their wish to operationalise this innovative potential for the demographic dividend, they fete

earlier. The characterisation that India and her private corporations are no exception to the traditional model of technology appears like a marching order to compliance, without reasoned engagement with fundamental differences in organisational and management practices. The importance of these practices and the capabilities underlying them has found recognition, even in the Developed West. What is more ironic is the way in which family-run firms are viewed as idiosyncratic actors, as entities demonstrative of the absence of the rule of law. This would render most informal sectors businesses, clearly off-radar to any form of analysis, further deepening the complicity-compliance characterisation of the informal economy. Further, his choice of examples (page xvi) could have been used to emphasise the relational elements of organisational practices and capabilities, if not innovation practices, narrowly or broadly understood.

The theme of a provision of public services in the healthcare is, however, well-appreciated, regarding the selection of case studies. But a case study is only as good as the consequentialist mandates that arise from it. Thankfully, the prospect for public health provisioning has not overlooked at improving access to health services, which technologically mediated solutions like Telemedicine appear to do. The curious appearance of the ecosystem on the back of the service provided appears counterintuitive.

Chapter 1 positions the placement of innovation in historical perspective as a challenge concerning Indian firms. While it is conceded that organised study of the Industrial organisation is not feasible in that perspective, one would do better instead to see whether it is required or not and if so, the terms of reference. Again, an influential critical view is neither that firms as actors within the capitalist political economy are the sole nor the main sources of innovation. This is perhaps why the themes seek to explore the context in which Indian firms operate, in terms of cultural practices. Brushing aside Schumpeterian evolution as insubstantial and irrelevant to the innovation question is a bit bizarre given the context of the Chapter. Alternatively, the author could recognise that even non-Schumpeterian trajectories apply to innovation capabilities and the scalability vis-à-vis innovation may not be there as an automatic process. His account of Tome Piers, where the networking capabilities of Gujarati traders are feted, doesn't forward his knowledge transfer culture argument much (pages 2-3). It has parallels with Schumpeter's views on currency as a form of exchange given the financial nature of the transactions discussed. Suffice to say, non-market exchanges will fall below the radar of this conceptualisation which is a bit of a disappointment, considering the promise of frugal innovation lies in the management of the traditional economic expectation from the innovative process or the knowledge transfer process underlying it. More so, it docu-

ments the rise of multinational corporations as a function of synergies developed with local traders combined with their military or financial clout. Later accounts serve to undermine the recognition of Asian trading practices. It serves well to underscore that the purported superiority of Western capitalism is a bit of a myth and the juxtaposition of modernity fallacious. However, saying that the triumph of the West has been suitably corrected in a manner though not empirically very sound, overlooks the value of subjective assessments, as opposed to comparing facts and figures. The positioning of leading authors from India, who have challenged the theses of European-led Asian commercial revolution is weak. This perhaps is done to establish political correctness over scholarship, which does injustice to examining the unique context of India. The overall impression that the British created some of the basic conditions for a capitalist transformation is no better than the criticism of the deindustrialisation thesis offered by the author. It seeks to entrench widely held notions about the reasons behind the lack of progress in India (pages 4-5) to the idiosyncratic elements like family structure, traditional values, etc., which appears judgmental. To talk of these views ignoring moral agency is quixotic, considering the impact on structural factors. Till today, the legacy of multilateral institutions dictating notions like comparative advantage, etc. can be rooted to this denial of moral agency. He makes a sweeping assertion that business motivations and attitudes towards innovation should be determined by technology. This is a bit of a misnomer that the decline of the Indian Textile Industry was due to the technological conservatism of Indian Industry. The author attempt's to attribute the lack of Innovation as an entrepreneurship problem, from this analysis, appears ignorant of structural issues, as a means of affecting the very social structure, he faults for the lack of Innovation. This typical characterisation of the historical perspective of India's trading community, concerning innovation undermines the very idea of a broad view of innovation. It also only serves to emphasise the idiosyncratic elements of Indian Society and makes the innovation proposition, more of an enigma than a Paradox.

Chapter 2 outlines the informal economy as a fuzzy concept with multiple interpretations and meanings, yet does not fully engage with their core philosophy as a cultural construct. Frugality like informality may be understood differently in different cultures. While he does emphasise certain real-life aspects in the mofussil (up-country) towns like overlaps with behaviour that pre-empt the Law or occurs in the absence of adequate enforcement; the Paradox between complicity and not compliance is often wrongly attributed to a deliberate intention of actors. It may well be realised that the avoidance of labour legislations by factory sized firms operating through these small units is as much a feature of corporate India. The link with civic apathy regarding infrastructure outlined by the

author may be a structural factor to the informal economy but is not a feature of it any more than the externalities like pollution and environmental hazards resulting from industries, operating out of cottage industry units. This is an unfair characterisation that positions informal economy as an institutional black hole of sorts. His definition of innovation takes from the Innovation system perspective given by authors like Lundvall, regarding an interactive process involving social relations of work is apt for the setting in question. The organisational and market innovations discussed to operationalise innovation talk of dimensions other than the Linear Model, which is a bit promising, yet it does not outline the spillovers and the mechanism of their genesis and growth. The author brings forth the tussle between innovation and regulation to bring out the technologically deterministic aspects, but the socially embedded aspects are often more important. His criticism of National Innovation system and its possibilities exemplified by agricultural innovation system is however misplaced, as he does not recognise the thread on dynamics between actors and networks on the operation of innovation systems and is non-critical about the network effects of manufacturing and service provision in the Informal economy. The overreliance on concepts in corporate marketing to address the innovation question is ill-suited to the resource constrained environment conceptualisation that is said to be characteristic of informal economy innovation. This coupled with the examples of the Nano car and solar lights lend an unrealistic flavour. Jugaad as part of innovation folklore finds some reverberation in the context of frugal innovation. However, the author has misunderstood the focal point of frugal innovation as coming from multinational corporations (Page 14).

Chapter 3 on the private provisioning of public goods positions healthcare as an area subject to multiple forms of an institutional void. The idea being conveyed is that the trade facilitation focus is less relevant to operationalise innovation than addressing information problems. The return to property rights is wrongly distinguished to build trust, as it is only essential for private provisioning of social goods and not their public provision per se. This is evident from the case study of Narayana Health. That the specialised intermediaries that facilitate information flows between the contracting parties are not only from the market institutions is perhaps lost on the author. The types cited from Literature are geared to general contexts. The case of healthcare is and has not been as straightforward as the structures of a provision of information but the information itself. It is not for nothing that informational asymmetry is considered a problem, given the differential social relations that operate between service providers and their users. All these specialised intermediaries are not required for healthcare, as we do not have a privately funded model of healthcare yet. That the other market institutions for regulatory roles etc. providing for certainty and enforceability of

contract are a priority for service providers is surprising, considering the perception that regulation operates to constrain profits. In fact, businesses are known to thrive in the absence of regulation. The spreading of costs by firms to the society at large and accumulating the profits to a few is an idea that has lost its lustre. This kind of motivation cannot but be the basis of private sector financing and consequent over-dependence on private actors and their priorities about regulation, which deserves to be seen with derision. The case study brings out well how actors can fill those voids by informal innovations in service and institutional delivery mechanisms. However, the section on the health insurance for Narayana Health could have done well to see how neglected diseases are often not developed similarly. Further, that health insurance models are essentially market centric and their administration has been the source of informational asymmetry. The account of skill formation should serve to enlighten governments that struggle with investments in higher education and skill-based training. The account, however, shows deep elements of philanthropism tied in with pragmatic problem-solving approaches developed in the local context. The idea that it can be done through the centralised model of the corporate entity does not match with the way in which the various programmes were studied. The telemedicine section demonstrates how networks assume importance in extending the reach of medical help given severe constraints on the availability of doctors. However, it could have developed the theme of the adoptive nature of the innovation involved in terms of the human element. Particularly, the responses of the patients could have lent a different flavour to the public perception surrounding telemedicine to give insights about its adoption in rural resource constrained settings. The outreach camps used to overcome transportation related infrastructural challenges are another promising example. The variant of the cross-subsidy model developed is another insight, which combines the advantages that India offers for affordable treatment to its domestic population. The development of indirect network effects within the local economy is better exemplified in this case study. As a result, the role of these organisational and management practices is well-characterised and disproves the conceptions about informal economy, outlined in the first two Chapters.

Chapter 4 outlines business groups as a form of organisational innovation in India and traces their activities and management practices to provide the much-needed questioning of Industrial organisation and the economies of agglomeration. However, it fails to identify how and through which mechanism intragroup firms interact in greater detail. Talking of the creation of innovation infrastructure, the author blames the absence of well-functioning market institutions for the lack of talent and technology in a formalistic tone. The intermediation role of business groups fails to go beyond a

resource-based view of the firm and mobility of factors of production like capital and labour. The author does not establish how the bankruptcy risks of these groups are better placed than individual firms. The characterisation of business groups in providing skilled manpower through incubators in any unique manner is not outlined. A question arises as to the empirical verifiability of their presence as venture capitalists. The narrative on external partnering is equally uninspiring. Particularly to say that joint ventures and alliances are more prevalent with business groups and positioning the issue as one of trust deficit and not of relational proximity is far too optimistic. The reduction in the actual costs of dealing with firms for knowledge transfer purposes has not been addressed at all. The scenario that these groups may hamper innovation at a macro level by creating entry barriers to competition appears more plausible. It comes as no surprise that intragroup innovation exhibits aversion to risk and inertia.

Chapter 5 documents the global biologics revolution and takes a capability approach to the shifts in the way drugs are produced. Aptly, tracing the molecularization of medicine from the era of chemistry-based pharmacology to molecular biology, the authors characterise long molecule biologics-based drugs and their implications for catch-up firms that reverse engineer branded drugs. The secondary data concerning Patents and Publications helps establish the relative importance of the biosimilars segment and the actors participating in the same. However, it is the firm level interviews that reveal more about underlying capabilities, drawbacks and shortcomings, etc. The dynamics of the Indian industry's drug development scenario discussed has tried to engage with public policy implications, concerning opportunities from off-patented drugs. This could have been better grounded in whether and how cost advantages will become relevant in this context, which is partially addressed in the costs of making or buying clones, production capabilities, etc. The Chapter does well to identify the differential capabilities required for producing biosimilars, as compared to what traditional chemistry-based drugs entail.

Chapter 6 outlines the approaches to copyright regarding the balancing interests of rights holders and the public at large. The author examines the means of ensuring access by two institutional approaches of central importance in this discourse- namely fair use and fair dealing. The former relates to exceptions to enforcement of copyright based on a consideration of contextual factors by judges through what is known as "common law". The latter is determined by legislative processes and leave little scope for contextual determination. The authors undertake a comparative approach between India and the United States. The use of the former would require institutional innovation considering the costs of litigation, nature of trade-offs about fair use, traditional problems of the

backlog of cases, need for a well-trained judiciary, sophisticated methods of evidence evaluation, considering novel subject-matter, among other factors. Much of these is structural and should have been elaborated. The authors try to make a case that Indian Courts are adopting the former approach, despite the presence of statutory exceptions to copyright. For the theme of innovation, open-source innovation and user centred models like copyleft could have been apter. The nuanced description of legalistic approaches may come across as jargonistic and laden with language which sort of compromises public understanding of Institutions. Also, the point driven across is that the fair use permits flexibility and fair dealing has more rigid categories is undermined by the discussion, which is diffuse. To understand the impact of these two different approaches would be difficult for the average reader who may be a user of academic material, subject to such rights.

Chapter 7 outlines governmental efforts in examining innovation in the organisation of public health services for Rural and remote parts in different contexts namely pharmaceuticals; medical devices; health informatics; and public health service delivery. After identifying some important determinants of performance quality of governance, human resources and political commitment, etc., the authors are of the view that under-appreciation of innovation has resulted from reform being conflated with liberalisation in favour of private actors. They are of the view that service delivery problems are to be handled through better enforcement of rules. The authors cite the National Rural Health Mission example to demonstrate innovation as a means of improved public health delivery entered the discourse. However, their characterisation of service delivery as a comprehensive business model or an intervention designed to deal with specific elements of the implementation chain doesn't always provide the "bang for the buck" that resource-constrained environments are looking for. The conceptualisation of innovation regarding significant benefit to social groups overlooks the fact that there are divergences on the degree and definition of the benefit. The authors have at least acknowledged the role of non-governmental organisations and other actors, which is in contrast with the other authors of the Book. Also, the fact that they are not scalable solutions doesn't render them less useful rather makes them more contextual and relevant. The case studies on the best practices pathway do not engage with the standardisation of practices narrative very deeply but focus on scalability too much. Also, the categories follow an implementation chain typology like referral transport with specialised aspects of healthcare viz., neonatal care, etc. The lack of comparability and mandates for standardisation run counter to the narrative of innovation. Moreover to say referral transport cannot be scaled renders a great disservice to addressing the cause of everyday occurrence

of patient deaths while in referral transit. The voucher scheme to increase institutional delivery is discussed somewhat in relation with operational problems and categorised as a disruptive innovation to healthcare service provisioning and financing. However, the structuring of the scheme being faulted for its lack of success is a bit discordant (p. 153). The business model pathway case studies demonstrate that emergency response services need a critical mass framework of services that can be operationalised in a centralised manner. The failure of paid, cost recovery models should reveal to those unduly celebratory of innovation within firms and business models, as to the preponderance of a lack of willingness to pay in resource-constrained environments. Other examples from Uttar Pradesh would reveal corruption and malpractices as structural factors to public healthcare provisioning. However, the Dial 108 and the Fixed Day 104 services case provide better insights than the previous set of case studies. (p. 155). Though it may be stated that what the contextual factors underlying the specific interventions devised and their effects are is not clear. The Janani case study comes across as a sole business model, which cannot be adequately attributable to State support and associated with a bouquet of services to address unmet disease burden needs. The authors cite the Chiranjeevi scheme in Gujarat (p. 157,158) in a manner that hardly provides comparability regarding differentiating parameters and appears contradictory to the claims made. The problem of evidence is acuter concerning Rashtriya Swasthya Bima Yojana, as regards unnecessary care and unnecessary costs (p. 159). In fact, this attribution masks the merits of social efficiency by such pejoratives which have no defined, objective or subjective meaning. The Society for Elimination of Rural Poverty, i.e., Velugu model as case study provides insights on how community-driven approaches to healthcare with a holistic focus on structural societal relations are more successful (p. 159-160). It would, however, have been more desirable if the community-driven elements had been discussed more. The case studies on policy priority pathway identify a few crucial areas for policy concern like supply chain management and procurement for essential medicines, retention scheme for skilled health Professionals, etc. The Mitandin and ASHA program has been well characterised, save for the characterisation that it is an institutional led approach in a top-bottom manner that is going to solve India's health provisioning problems (p. 162, 163). It is as the narrative outlines about informal institutions (as opposed to formal ones), particularly the elements discussed, reveal the need for capacity building, human and financial resources, leadership, advocacy, etc. All said and done, while the need for quality assurance is undeniable, its visualisation in purely management paradigms like total quality management does injustice to its 'human' elements, as also to the nature of processes outlined in quality management

(p. 163). Also to say that it is purely an institutional-led innovation is also unfair. The authors do outline the need for home-grown solutions, focus on improved outcomes in service delivery, need for decentralisation (though it makes a late entry and is less discussed), need for an innovation mindset, as opposed to enforcement mindset. These conclusions form the bright spots in the Book, in what is otherwise a view skewed towards innovation in its narrow formalist formulation.

Chapter 8 deals with the concept of Innovation for the Millions (I4M), a characterisation which is targeted at the base of the pyramid concerning social benefit. This argues for a widening conceptualisation of actors and serves promisingly to move from the theme of business as the sole and only source of innovation. The choice of case studies apart, little more detail in them is desirable to enhance their potential value for the policy professional. The special characteristics identified about I4M are contradictory in the understanding of their arising in response to the failure of State and using State subsidy models in part. (p. 174, 175). While the constraints concerning the government's attitude to avoid failure and negative connotation to commercialisation in society are opposite, the societal consensus on reasonable profits and their linkages with socially optimum outcomes is rather tenuous. The opportunities for fostering an innovation ecosystem is

reduced to those of commercialisation, as opposed to human skilling processes and networks which takes the thunder from the lightning, as it were (p. 178-179). The same diffuse nature of piecemeal narratives focussed on establishing the site of innovation as essentially in business follows through in the ecosystem aspects, which defies the concept and its boundaries (p. 180-181).

In conclusion, counting opportunities without looking at the critical aspects will not work in tapping opportunities. The conceptualisation of data as the new oil serves only to widen informational asymmetries; the perpetuation is in the domain of all actors and no single actor alone. Throwing the hands in despair and shifting the blame to regulations maybe as much of a jugaad or quick fix as is the innovations done by businesses. With the lack of the clear mandate, the book fails to make a call for the pioneering spirit but instead appears very much the incantation of despair that innovation has come to represent. May the spirit of innovation aptly rest in peace instead.

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