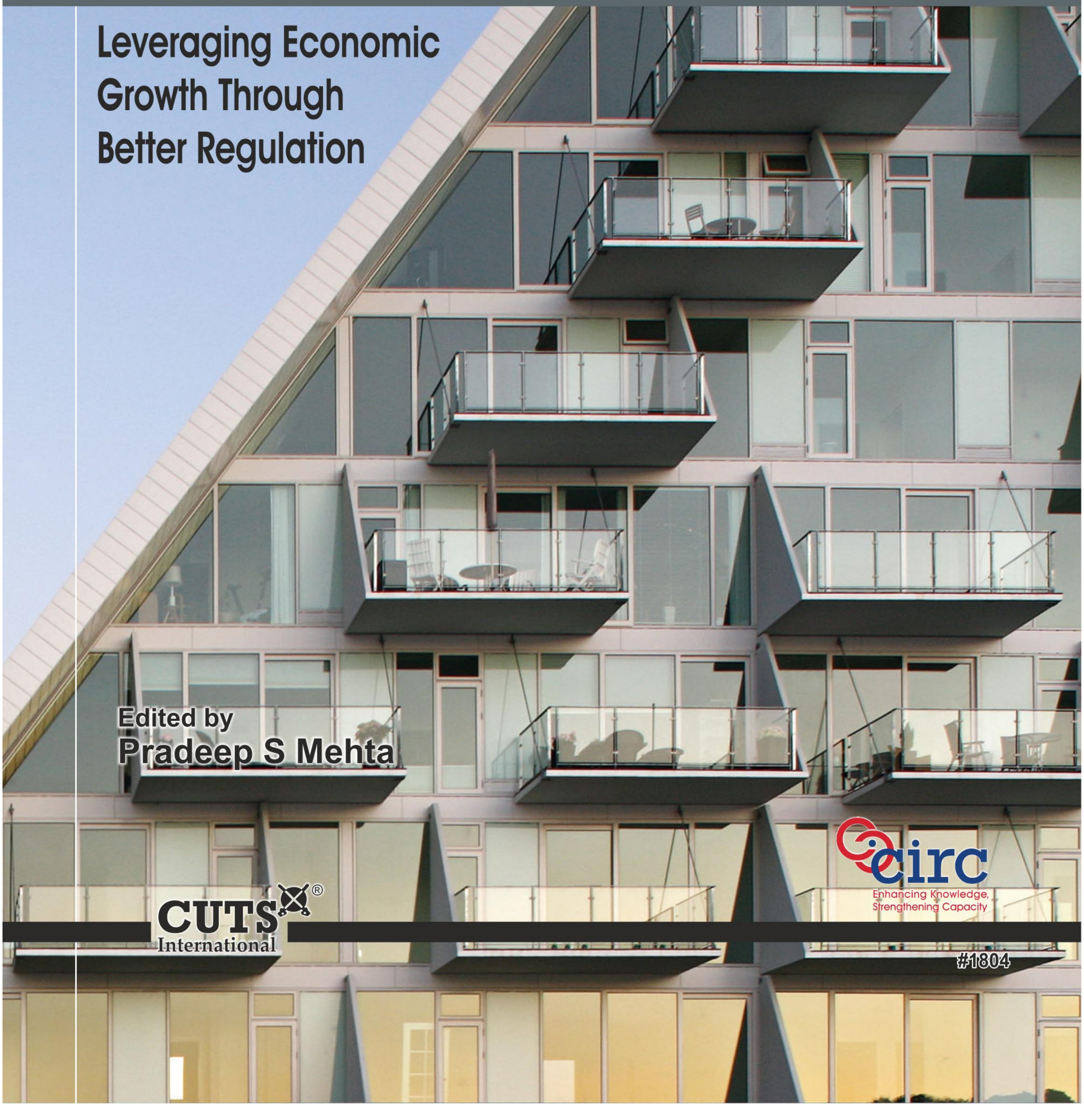
Competition and Regulation in India 2017

Leveraging Economic Growth Through Better Regulation



Edited by
Pradeep S Mehta

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Foreword

The India Competition and Regulation Report, 2017 (ICRR, 2017) is a compendium of policy relevant research on the status of competition and regulation in India spanning across sectoral and institutional dimensions. This volume is the sixth in a series of biennial reports which endeavours to monitor people's perception of the state of competition and regulation in India, with an emphasis on certain selected sectors. One unique feature of the Report is an assessment of the perception of the people regarding competition and regulation in the country through an Index. The sample is robustly constructed with a healthy mix of stakeholders from various categories.

The results of this year's ICRR flagship survey provided a very sobering picture regarding the status of competition. It shows that the landscape of competition was not too vibrant. Things have changed since the reforms began, and people do acknowledge the same, but a lot now needs to be done and addressed. Clearly, a lot of structural and regulatory reforms are required to improve competition and dynamism in the economy. In addition to Government policies, regulatory architecture has to rise up to the occasion to ensure that the link between liberalized markets and productivity/ innovation gains is maintained. Our institutions have to continuously monitor that the process of liberalization is not pro-business but pro market. In case it is the former, then there is a reason to believe competitive pressures have not emerged and market concentration has increased having a negative impact on productivity.

While the Report points to lacunae in the regulatory framework, it attempts to put ideas on the agenda and stimulate public debate, which is an important contribution in the area of regulatory and competition policy dialogue of India. The theory of economic regulation has advanced significantly employing the tools of mechanism design with incentives and asymmetric information providing the necessary foundation. Using this framework, economists have classified and categorised all sorts of market failures and developed a sophisticated "optimal" regulation theory to address the same, which is the underlying theme of this Report. However, translation of theory into practice requires institutional capacity which will be built over time. The process of institutional reforms is arduous and requires an engagement not only of the Government but also of other stakeholders.

This publication serves to shed light on the role of competition policy and law as essential policy tools towards achieving sustainable and inclusive development. It provides a series of studies, which clearly reflect, from a pragmatic perspective, importance of effective implementation of competition policies and regulations for sustainable development. Competition and regulatory reforms undertaken throughout the world show the importance of competition not only for economic growth but also for job creation and innovation.

In addition to the above general theme, this volume has analysed specific competition and regulatory aspects of sectors such as Agriculture (APMC reforms); GM Cotton seeds and issues pertaining to competition, price control and licensing, Standards Essential Patents and issues related with its licensing on FRAND terms in ICT Sector, and Digital Financial Services. I am glad that this Report has addressed the most pressing issue of the intersection between intellectual property and competition. This issue cuts across all technology industries as diverse as ICT, Agriculture and Pharmaceuticals. But the underlying issue for determination is the same. Technology industries heavily rely on intellectual property, and access to standards and interoperability are crucial. Research and development may involve substantial risk and resources and, therefore, need for protection of IPR is paramount in an innovation economy. IPR awards exclusive rights as a reward for innovation. However, simply holding IPR cannot absolve an enterprise from its responsibility not to use it in an anti-competitive manner. The restrictions imposed in an IPR license must not go beyond the scope of the IPR to exploit users or exclude rivals.

I am delighted that CUTS is continuing with its tradition of bringing out the compendium of competition and regulation in India over the years despite constraints and the sixth edition is equally enriching research experience. I am sure this Report will generate sufficient interest among practitioners, policymakers, lawyers and consultants. I wish CUTS success for its future endeavours.

New Delhi
March 2018

Devender K. Sikri
Chairperson, Competition Commission of India

Preface

The Indian economy has been growing at a respectable rate and also seems to be on the path of recovery from the twin blows of demonetisation and implementation of the nation-wide goods and services tax (GST), a desirable but clumsily implemented fiscal reform. However, even if the worst is over, certain important concerns remain to be addressed. These include the banking sector's Non-Performing Assets (NPA) burden and bank frauds, the failure of agricultural marketing to keep pace with the transformation of agriculture away from cereals to fruits, vegetables, dairying and related activities, the problems of the Micro, Small & Medium Enterprises (MSME) sector and the inadequate development of domestic supply linkages in the manufacturing sector. In addition, the inadequate pace of job growth and the rising inequality of income and wealth, particularly in the upper tail of the distribution, pose a significant threat to political and social stability.

The contribution of agriculture in national GDP is low and falling. But more households depend on farming incomes than on other sources and their prosperity is a key growth driver, as is recognised in the growing recognition of the importance of rural demand in the manufacturing and, to a lesser extent, in the services sector. Yet farmers' distress seems to be on rise, despite a good monsoon and record production in agriculture. Most importantly, the present NDA government has promised to double farmers' income by 2022, a hugely ambitious goal that would require radical changes in policy, particularly in marketing and international trade. One of the suggested ways to enhance farmers' profitability is the reform of the agriculture produce market (in short termed as APMC reforms). Accordingly, the Centre has come out with a new Model APMC law in 2017 replacing that of the 2003. Now the onus lies on the States to show some action, since 'agriculture marketing' is in their domain. However, the Centre has the key role in international trade policy for agricultural products. This, too, must be designed with the same objective as APMC reforms, which is to give farmers the widest set of options for selling their products and a stable and predictable policy, rather than the poorly timed stop-go trade controls that have been used so far.

Further, although India has shown an improvement in the World Bank ranking on ease of doing business we are still far from where we need to be and we still have a very long way to go on areas like ease of contract enforcement. In addition, the technological dynamism and global competitiveness of the manufacturing sector needs attention. Only carefully crafted continuous reforms would yield the desired outcome. Raising custom duties are not good tools to safeguard domestic sector, since it would allow local producers to survive even when they are not globally competitive. Protection also dilutes the pressure for productivity growth, cost reduction and product and process innovation that we require and that global competition can engender.

CUTS and CIRC has been publishing a report on Competition and Regulation in India (ICRR) every second year since 2007 and I have been closely involved in the process of their preparation. These reports have been raising major issues concerned with competition and regulatory environment in India. The ICRR 2017, which is sixth in the series, has continued this trend.

The present volume of the ICRR has a chapter on APMC reforms that presents a comparative analysis based on inputs from two states – Bihar and Rajasthan – and also a competition analysis of the Model APMC Act, 2003. The report also presents analysis on important, yet contentious, issues arising out of competition and intellectual property rights (IPRs) interface. It has examined two sectors, namely GM Cotton Seed and Information & Communication Technology (ICT), in respective chapters.

The report also contains a chapter on digital payment raising the issue of optimal regulation. Last but not the least, this volume of the ICRR has also made a successful attempt to show how competition reforms can facilitate achieving sustainable development goals of the 2030 Agenda.

I hope that ICRR 2017, like earlier volumes, will stimulate public debate and help influence requisite reforms in existing regulations, which in turn will promote competition.

Jaipur
March 2018

Nitin Desai
Former Under Secretary, UN &
Chairman, Institute of Economic Growth
New Delhi

Editor's Note

Optimising regulations for inclusive and sustainable growth...

The motto "*sabka saath, sabka vikas*" (we should walk together, work together and progress together) of the Modi government emphasises 'inclusiveness' in India's developmental approach. This is also an aspect of the Sustainable Development Goals (SDGs). In a market-economy, to which India is slowly marching towards, competition policy is an important tool to inculcate inclusiveness in the system. While competition policy reforms act as *ex ante* tool to provide and promote "equality of opportunity", effective competition law enforcement mitigates market failures, competition distortionary practices and promotes robust markets.

In other words, optimal regulation and competition are key ingredients for the sustainable development agenda to move forward. This also goes well with the famous quote of the Prime Minister – minimum government, maximum governance. However, we still need a lot of reform in this regard.

India has traditionally had a regulatory-heavy governance system, but things began to change post-liberalisation in 1991. However, some of the regulations still remain archaic and are acting as an impediment to our economic growth, which demands further reforms for achieving a truly optimal regulatory framework. Tools like competition impact assessment and regulatory impact assessment would not only be useful in this regard, but are also the need of the hour. Adopting and implementing the draft National Competition Policy would further facilitate application of such tools across the board, including state-level regulations. The aim should be to have a regulatory framework that will be an enabler for businesses through ease of doing business, and for consumers with enhanced competition in the market.

The most prominent change, the country and the world is witnessing, is the transition to digital economy and what is called as Industrial Revolution 4.0. Digitisation and automation are fast catching up with businesses, with huge promises to the national economy, including enhancing Ease of Living for people. We are happy that the government has adopted this as a parallel movement to Ease of Doing Business to ensure that citizens do not feel discriminated. We have been advocating this for long. While entrepreneurship has witnessed an unprecedented push, digitisation has aided availability and accessibility of goods and services to larger masses. This may be seen from the steadily growing telemedicine industry, urban mobility business, e-tailing, e-governance, among others.

But the conventional regulatory framework can act as an impediment to the growing digital economy with multifarious technological interventions. In addition, the conventional framework may fall short of catering to new challenges of digital era, such as data protection, privacy, cyber security, net neutrality etc. It will take massive efforts from the government to understand the rapid evolution of technology and accordingly draft optimal regulations. More so, this is also the responsibility of the citizens to contribute in the process.

For instance, in agriculture sector there is a push towards one-India market for agriculture produce through eNAM (electronic National Agriculture Market), which can change the dynamics of the agriculture sector in favour of producers and consumers, if implemented in letter and spirit. However, the present form of regulation of agriculture produce market by states act as hurdle in reaping benefits of eNAM, demanding APMC reforms within states as a high priority. Alas, the political economy factors are holding back the reforms.

Furthermore, because of high reliance on technological interventions in goods and services, newer forms of regulatory tensions are emerging, both at theoretical and implementation levels. One such new tension is between competition policy and intellectual property policy, not only in the context of 'innovation' and 'access' but also in the context of the development paradigm of a country. In India, at least two examples have been widely debated in the recent past depicting the inherent tension between competition and IP – one in the case of mobile industry related with Standard Essential Patents and their licensing on FRAND terms, another in the Bt Cotton case that involved proprietary technology and its licensing in seed sector. The jurisprudence on the said conflict is yet to fully settle. There is a need to balance the two – competition and IP – depending upon the level of development of a country and to ensure that innovation does not suffer.

Be that as it may, the last five editions of ICRR have reflected on several competition and regulatory concerns, the country has faced across sectors and this edition continues the trend. This edition of ICRR presents some useful analysis on contemporary issues related with: agriculture produce market regulation; interface between IP, competition and price control in Genetically Modified cotton seeds; licensing of standard essential patent in ICT sector; need for optimal regulation in digital financial services sector; and role of competition policy in achieving SDGs, the century's major challenge.

While this edition has been drafted under my supervision, credit is due to authors who have been closely involved in producing this report. The contributing authors are: Udai S Mehta, Amol Kulkarni, Ujjwal Kumar, Rohit Singh, Parveer Ghuman and Arpit Tiwari. The editorial assistance was provided by Madhuri Vasnani and the layout was done by Mukesh Tyagi. We are grateful to their efforts.

Finally, the epilogue chapter of this report discusses the areas/issues, we would want to explore in the next edition of the report on Competition and Regulation in India, 2019.

Pradeep S Mehta
Secretary General
CUTS International

Jaipur
March 2018

Abbreviations

ADB	:	Asian Development Bank
AEPS	:	Aadhaar Enabled Payment System
AMR	:	Adaptive Multi-Rate
APBS	:	Aadhaar Payment Bridge System
AT&C	:	Aggregate Technical & Commercial
BBPCU	:	Bharat Bill Payment Central Unit
BBPS	:	Bharat Bill Payment System
BCs	:	Business Correspondents
BRBN	:	Bihar *Rajya Beej Nigam*
BRICS	:	Brazil, Russia, India, China and South Africa
BSFC	:	Bihar State Food Corporation
CAGR	:	Compound Annual Growth Rate
CCI	:	Competition Commission of India
COMPAT	:	Competition Appellate Tribunal
CREW	:	Competition Reforms in Key Markets for Enhancing Social and Economic Welfare in Developing Countries
CSOs	:	Civil Society Organisations
CSPCO	:	Cotton Seeds Price (Control) Order
DBT	:	Direct Benefit Transfer
DE	:	Digital Economy
DEAF	:	Depositor Education and Awareness Fund
DFI	:	Doubling Farmers' Income
DFS	:	Department of Financial Services
DHC	:	Delhi High Court
DIPP	:	Department of Industrial Policy and Promotion
DLT	:	Distributed Ledger Technology
DNEP	:	Draft National Energy Policy
DoJ	:	Department of Justice, US
DPS	:	Decentralised Procurement System
EC	:	European Commission
ECA	:	Essential Commodities Act
ECOWAS	:	Economic Community of West African States
EDGE	:	Enhanced Data Rates for GSM Evolution

eNAM	:	electronic National Agriculture Market
EoDB	:	Ease of Doing Business
ETSI	:	European Telecommunications Standards Institutes
FCI	:	Food Corporation of India
FDI	:	Foreign Direct Investment
FII	:	Foreign Institutional Investor
FMCGs	:	Fast Moving Consumer Goods
FPI	:	Foreign Portfolio Investment
FRA	:	Financial Redress Agency
FSLRC	:	Financial Sector Legislative Reform Commission
FTC	:	Federal Trade Commission
G2P	:	Government to Person
GEBAP	:	Guidelines for Examination of Biotechnology Applications for Patent
GM	:	Genetically Modified
GSDP	:	Gross State Domestic Product
GST	:	Goods and Services Tax
GVA	:	Gross Value Addition
ICAR	:	Indian Council of Agricultural Research
ICT	:	Information and Communication Technology
IDRBT	:	Institute for Development and Research in Banking Technology
IEEE	:	Institute of Electrical and Electronics Engineers
IMPS	:	Immediate Payment Service
IoT	:	Internet of Things
IPAs	:	Investment Promotion Agreements
IPO	:	Indian Patent Office
IPRs	:	Intellectual Property Rights
JFTC	:	Japan Fair Trade Commission
KYC	:	Know Your Customer
LDCs	:	Least Developed Countries
M&As	:	Mergers & Acquisitions
MAHYCO	:	Maharashtra Hybrid Seeds Company
MDGs	:	Millennium Development Goals
MDR	:	Merchant Discount Rate
MHPL	:	Monsanto Holdings Private Limited
MMBL	:	Mahyco Monsanto Biotech (India) Limited
MoAFW	:	Ministry of Agriculture and Farmers Welfare

MRTPC	:	Monopolies and Restrictive Trade Practices Commission
MSP	:	Minimum Support Price
NBFCs	:	Non-banking Financial Companies
NCP	:	National Competition Policy
NMP	:	National Manufacturing Policy
NSAI	:	National Seed Association of India
NSP	:	Net Selling Price
OECD	:	Organisation for Economic Cooperation and Development
PACS	:	Primary Agriculture Cooperative Societies
PBRs	:	Plant Breeders' Rights
PMI	:	Purchasing Mangers' Index
PoS	:	Point of Sale
PPIs	:	Payment Instrument Instruments
PPP	:	Public-Private Partnership
PVFR	:	Plant Varieties and Farmers' Rights
PRB	:	Payments Regulatory Board
PRU	:	Policy and Regulatory Uncertainty
PSUs	:	Public Sector Undertakings
RajFED	:	Rajasthan State Co-operative Marketing Federation Ltd
RBI	:	Reserve Bank of India
RIA	:	Regulatory Impact Assessment
RKVY	:	*Rashtriya Krishi Vikas Yojana*
RSSC	:	Rajasthan State Seed Corporation
RTGS	:	Real Time Gross Settlement
SDC	:	Sustainable Development Conference
SDPI	:	Sustainable Development Policy Institute
SDGs	:	Sustainable Development Goals
SDOs	:	Standard Development Organisations
SEP	:	Standard Essential Patent
SMEs	:	Small and Medium-Sized Enterprises
SSOs	:	Standards Setting Organisations
SSPPU	:	Smallest Saleable Patent Practicing Unit
TSDSI	:	Telecom Standards Development Society of India
UDAN	:	*Ude Desh ka Aam Nagrik*
UIDAI	:	Unique Identification Authority of India
UMPPs	:	Ultra-Mega Power Projects
UN	:	United Nations
UPI	:	Unified Payments Interface

WB	:	World Bank
WEF	:	World Economic Forum
WTO	:	World Trade Organisation

CHAPTER 1

An Overview

Slow progress in living standards and widening inequality have contributed to political polarization and erosion of social cohesion in many advanced and emerging economies. This has led to the emergence of a worldwide consensus on the need for a more inclusive and sustainable model of growth and development that promotes high living standards for all.

– The Inclusive Development Index 2018, World Economic Forum[1]

India's Present Macroeconomic Status

In the economically integrated world, India, though still an emerging economy, is a vital player. Not only it is a big market for domestic as well as global producers, but also has highest number of youth population in the world. Around 28 percent of Indian population is younger than 14 years,[2] which can be an opportunity in terms of a large work force (for Indian and global producers), but can also be liability if the present rate of unemployment continues having adverse socio-economic and political consequences. According to a forecast by the United Nations, India's population is likely to reach 1.6 billion (17 percent of the world's total) by 2040[3]. Therefore, the worldwide consensus on the need for a more inclusive and sustainable growth model becomes imperative in the case of India.

While on the one hand, the world is watching India, its progress and strategies of transformation with great expectations, and also with eagerness to influence; on the other hand, being argumentative by nature, Indians are discussing and debating *vikas* or 'development' – which was the prime issue in the last general election.

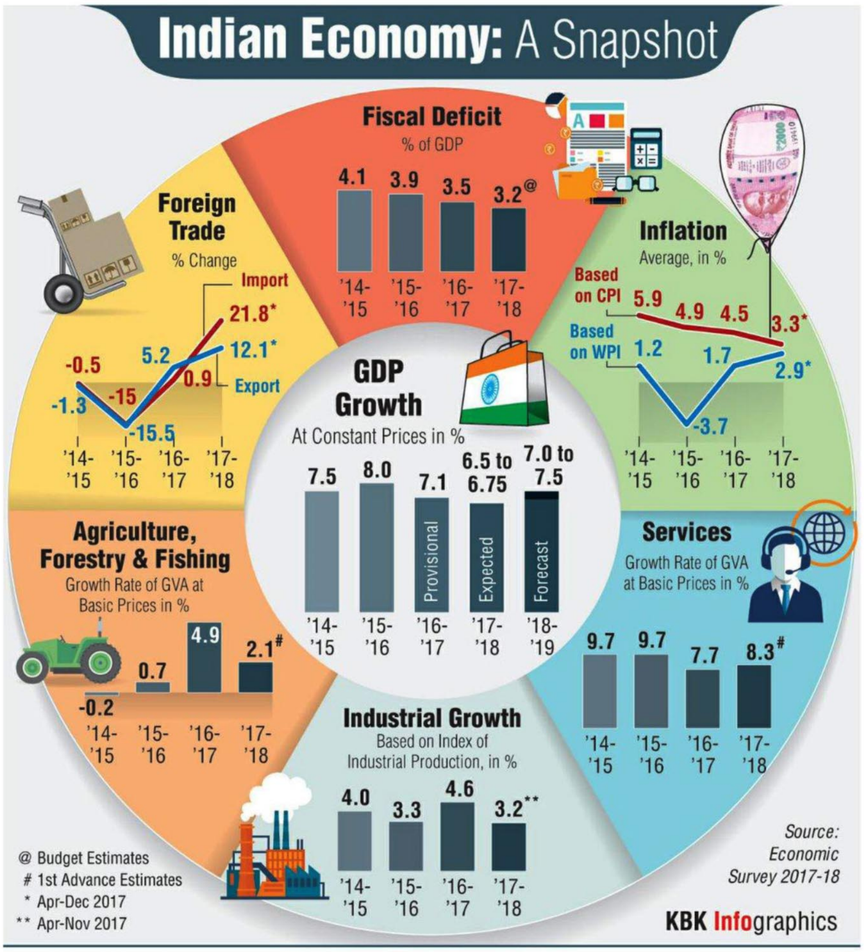
From Global Eyes – Good days ahead, provided…

As per a World Bank Report[4] (January 2018), Indian economy is geared to grow at the rate of 7.3 percent in 2018-19 and is more likely to maintain a rate around this for the next decade. Further, from 2019-20 India is expected to be the fastest growing large emerging market in the world.

This projection by the World Bank has bestowed much needed optimism to a dipping trend (in growth rate) seen recently, reportedly mainly due to demonetisation and implementation of the Goods and Services Tax (GST). The Figure 1.1 presents a snapshot of the Indian economy that vividly establishes its robustness and stability.

For a sustained growth rate of around 7.5 percent, the World Bank Report, as usual, suggests reforms in labour market, health and education sectors as well as relaxing investment bottlenecks. In addition, reducing youth employment and improving the female labour force participation rate, have also been emphasised. Furthermore, measures to deal with non-performing loans and increasing productivity have been advised.

Figure 1.1: Indian Economy — A Snapshot



Source: Frank Noronha[5]

The Organisation for Economic Cooperation and Development (OECD) Economic Survey – India[6] (February 2017) has also recognised that India, with economic growth of around 7.5 percent, is the fastest-growing G20 economy (the Table 1.1 presents key macroeconomic indicators of the Indian economy). According to the report, the acceleration of structural reforms, move towards a rule-based policy framework and low commodity prices have provided a strong growth impetus. Similarly the efforts towards ease of doing business (EoDB) and deregulation measures have attracted foreign investment.

From investment perspective, the OECD Survey has however cautioned against: the relatively high corporate income tax rates; slow land acquisition process; stringent regulations in some areas; weak corporate balance sheets; high non-performing loans which weigh on banks' lending; and infrastructure bottlenecks. It has also flagged that the quality of jobs created has been low, which is mainly due to complex labour laws.

Table 1.1: Macroeconomic Indicators and Projections

Annual percentage changes

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Real GDP[1]	6.6	7.2	7.6	7.0	7.3	7.7
Consumer price index (CPI)	9.4	5.8	4.9	4.8	5.0	4.6
Wholesale price index (WPI)	6.0	2.0	-2.5	2.8	4.0	4.2
Reserve Bank repo rate	7.6	7.9	7.0	6.4	5.9	5.6
10-year government bond rate	8.4	8.3	7.8	7.1	6.5	6.3
Fiscal balance (per cent of GDP)[2]	-6.7	-6.5	-7.2	-7.0	-6.7	-6.4
Current account balance (per cent of GDP)	-1.7	-1.3	-1.1	-0.8	-0.9	-0.9
Private final consumption expenditure	6.8	6.2	7.4	7.0	7.8	7.6
Government final consumption expenditure	0.4	12.8	2.2	8.3	4.9	6.8
Gross fixed capital formation	3.4	4.9	3.9	0.4	4.3	7.3
Total domestic expenditure	2.0	6.9	8.0	5.4	7.5	7.9
Exports of goods and services, National Accounts basis	7.8	1.7	-5.2	4.5	4.6	5.2
Imports of goods and services, National Accounts basis	-8.2	0.8	-2.8	-2.3	5.4	6.3
Net exports, contribution to growth of real GDP	4.5	0.2	-0.5	1.5	-0.2	-0.2

Note: Data refer to fiscal year starting in April. The projections shown here are based on the OECD Economic Outlook 100 and include more recent information.

1. GDP is measured at market prices, which is GDP measured at factor costs plus indirect taxes less subsidies.
2. Loans from the central government and the states to other public bodies are included.

Source: OECD projection based on OECD Economic Outlook 100 database.

As per the OECD Survey, even though strong growth has raised incomes and reduced poverty, the rising inequality is a concern. About 140 million people have been taken out of poverty in less than 10 years, which can also be attributed, apart from high growth rate, to large welfare programmes including price-support for food, energy and fertilisers and programme guaranteeing the 'right to work' in rural areas. The Survey suggests better targeting of these welfare schemes, reducing administrative costs and corruption and supporting financial inclusion.

On inequality, the OECD Survey points out that many Indians still lack access to core public services, such as electricity and sanitation. Public spending on healthcare is low, the quality of education is uneven and participation of females in labour force remains abysmal. Such deprivation is more pronounced in rural areas and urban slums.

According to the Inclusive Development Index (IDI) 2018,[7] published by the World Economic Forum (WEF), India ranks 62nd out of the 74 emerging economics. India is behind all the other South Asian countries (Nepal 22, Bangladesh 34, Sri Lanka 40, and Pakistan 47) as far as IDI is concerned. Among BRICS nations only South Africa (69) is behind India in the ranking (Russia 19, China 26, and Brazil at 37). According to the WEF IDI 2018 report, despite decline in poverty in India, 6 out of 10 Indians still live on less than US$3.20 per day.

As aptly put by Arun Maira, "India is amongst the most unequal countries in the world. While India's economy is growing, inequality is growing faster. Since the 1980s, India is the country with the largest gap between growth of incomes for the top one percent and for the population as whole."[8] Similarly, according to a survey[9] by Oxfam in January 2018, India's richest one percent garnered around 73 percent of the total wealth generated in the country in 2017, while the poorest half got only one percent. The report's findings are in line with those of similar studies including the one published by renowned economists Lucas Chancel and Thomas Piketty in July 2017, and give credence to the theory that the rich have disproportionately benefited from liberalisation while others have been left struggling.[10]

For the Indian economy to be inclusive, reforms are needed whereby more and more economic participants take part in contribution of economic growth. For this to happen, EoDB is imperative. Traditionally, India has not fared well in this context but things are showing some improvements.

In the World Bank's ranking of countries *vis-à-vis* EoDB, India has jumped from 140 in 2014 to 100 in 2018. However, taking cognisance of Chile's objection, the World Bank is in the process of correcting its reports and republishing what the rankings would have been without the recent methodology changes.[11] According to the Centre for Global Development, it was the new methodology used in the calculation that led to steep jump in India's ranking instead of real change in indicators. According to the old methodology, India's ranking would be 134 instead of 100. Whatever may the ranking be, there is a huge scope for improvement *vis-à-vis* EoDB in India.

Again from the inclusive growth perspective and particularly for creating job opportunities, the manufacturing sector of India needs to be robust. Recently the WEF has released its first 'Readiness for the future of production report',[12] and has ranked India at 30th position (out of 100 countries) on a global manufacturing index. While India is below China (5th), it is above other BRICS members, Brazil, Russia and South Africa. Japan is at the top having the best structure of production.

As per the WEF Report, India has been ranked 9th in terms of scale of production, 48th for complexity, 3rd for market size and 90th (or below) for female participation in labour force, trade tariffs, regulatory efficiency and sustainable resources.[13] This suggests that there is huge potential that remains to be tapped.

The said WEF Report has listed human capital and sustainable resources as the two key challenges for India. There is a need to further raise the capabilities of its relatively young and fast-growing labour force. This entails upgrading education curricula, revamping vocational training programmes and improving digital skills. In addition, India should continue to diversify its energy sources and reduce emissions as its manufacturing sector continues to expand.

Not only India needs to improve its manufacturing index, for which there are huge untapped potentials, the same need to be done taking into account what is called as Industrial Revolution (IR) 4.0.[14] Unfortunately, in the ranking of countries that are best positioned to capitalise on the IR 4.0 to transform production systems, India has been ranked 44th. The US is on the top. Among BRICS, China is at 25th place, Russia at 43rd, Brazil 47th and South Africa 49th. The report calls for adoption of new and innovative approaches to public-private collaboration to accelerate transformation.[15]

In light of the above observations in several credible global reports, it can be said that India is on right growth trajectory. However, India still has to work upon to make growth more inclusive. One of the ways to make the growth more inclusive is to promote regulatory reforms for ease of doing business. In addition, the manufacturing sector would need special focus – to enhance its global competitiveness and to digitaly upgrade to capitalise on IR 4.0.

Current Domestic Debate – A Mixed Picture

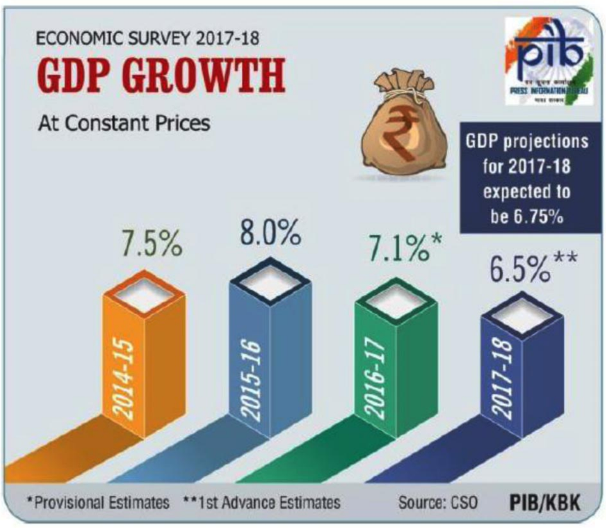
While global pictures about the Indian macro-economy are, in general, based upon longer observable periods, that in the domestic debates are mostly on a much shorter observation period. More so, since 'development' and 'inclusiveness' are now political issues, the domestic debates are much more fierce than annual global reports – there is also an undercurrent of 'rich vs. poor' as far as gains from growth are concerned.

Therefore, more than the relatively high rate of growth (India's GDP increased 7.1 percent in 2016-17 according to the CSO data; please see Figure 1.2 for annual GDP growth from 2014-15 to 2017-18); it is the dip in such rate that has been focus of domestic discussions. The most pertinent question has been the recent dips in growth rate (which is hovering between 6 to 7 percent), when the global economy is showing recovery and acceleration.

In the seven quarters beginning January 2016, the quarterly growth rate of Gross Value Addition[16] (GVA) was 8.7, 7.6, 6.8, 6.7, 5.6, 5.6 and 6.1 percent respectively. In the same period, the Index of Industrial Production[17] remained almost stationary between 121.4 and 120.9.[18]

The experts have blamed this largely on demonetisation and hasty implementation of GST, which reportedly hampered the unorganised sector, the most. Since a large part of Indian economy constitutes of unorganised sector, it has adversely impacted the overall growth of the economy. This view, however, is fiercely contested. According to Surjit Bhalla, "the major contributory cause to the lower growth rate in 2017-18 is the large increase in real repo rates to three percent, the highest observed in India since 2003, and the third-highest among major countries in 2017-18 (behind Brazil and Russia)".[19]

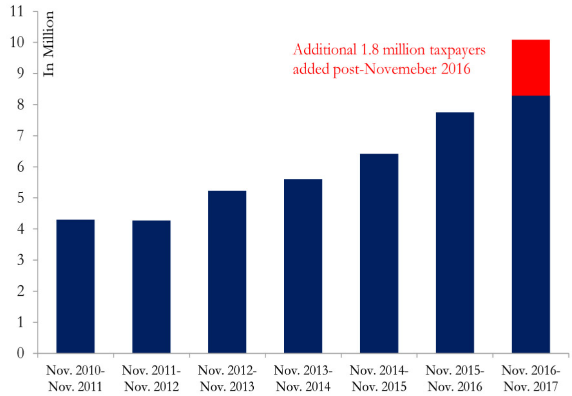
Figure 1.2: Economic Survey 2017-2018: GDP Growth



The reportedly adverse effects of demonetisation and GST implementation on growth are also being contested by showing increase in tax collections. The tax collection figures between April-June 2017 quarter saw an increase in Net Indirect Taxes by 30.8 percent and an increase in Net Direct Taxes by 24.79 percent year-on-year, indicating a steady trend of healthy growth.[20] According to the Economic Survey of India 2017-18, post-demonetisation and GST, we witnessed increase in new tax filers (over and above natural increase) of about 1.8 million and 50 percent increase in new tax payers under GST (see Figures 1.3 and 1.4).[21]

The Indian growth story can also be narrated in respect of the tax-GDP ratio and increase in tax compliance. 'In 2013-14, personal tax compliance in India was a low 25 percent (i.e. the government was able to collect only 25 percent of the money that was due), as compared to 82 percent in the US. Between 2009-10 and 2014-15, direct tax buoyancy[22] averaged 0.93 i.e. for each 10 percent increase in GDP, direct tax collections rose by 9.3 percent. In demonetisation year 2016-17, direct tax buoyancy increased to 1.22. And based on data for three-quarters of the fiscal year 2017-18, tax buoyancy has jumped to 1.90. This increasing trend in buoyancy is likely to be a permanent change in India's fiscal landscape. The full implementation of GST should also enhance the buoyancy of both direct, and indirect, tax collections.'[23]

Figure 1.3: Additional New Individual Income Tax Filers



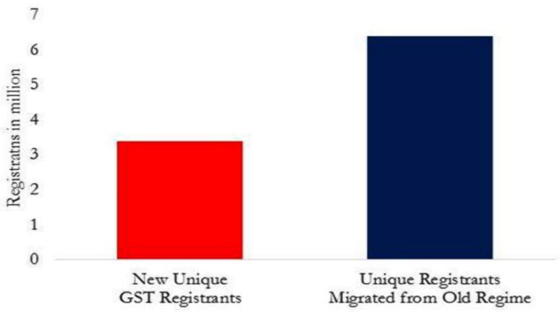


Figure 1.4: 50 Percent Increase in New Taxpayers under GST

Source: Economic Survey of India 2017-18

Further, lower rate of investment is also a concern, which has seen marked fall from a peak of 40 percent of GDP in 2011 to 30 percent in 2017. If the investment rate were to remain at the latter level, GDP growth is unlikely to rise over 8 percent a year. However, the soaring investment rates of the early 2000s were found to be unsustainable and created a 'twin balance sheet' problem that resulted from the bad debt in banks.[24]

Even though domestic investment is said to be below par, India is among the top performers in the world in attracting foreign direct investment (FDI). According to the data put out by the Department of Industrial Policy and Promotion (DIPP), FDI flows into India (including re-invested earnings) stood at US$60bn (provisional) in 2016-17, up eight percent over the previous year. The growth in FDI flows was 23 percent in 2015-16 and 25 percent in 2014-15.[25]

India has retained top rank as Greenfield FDI destination for the second consecutive year, attracting US$62.3bn in 2016 according to 'fDi Report 2017', a division of the *Financial Times*. FDI by capital investment in 809 projects saw an increase of two percent during 2016.[26] The situation is likely to improve in near future after further liberalisation of FDI norms in certain sectors in January 2018.

Thus from the above discussion, one can get a mixed picture about the current situation of the Indian economy. Nonetheless, from the break-up of sectoral GVAs (please see Table 1.2), the two sectors that are posing some concerns in the Indian economy are agriculture and manufacturing.[27] Since around half of the population is dependent on agriculture and since, manufacturing sector has been (and is being looked upon as) major job creator, these sectors merit some deeper discussions.

Table 1.2: Growth Table (Sectoral GVA, Overall GDP)

First advance estimates of GVA by economic activity (2011-12 prices, %)		
Industry	**2016-17**	**2017-18**
Agriculture, forestry & fishing	4.9	2.1
Mining & quarrying	1.8	2.9
Manufacturing	7.9	4.6
Electricity, gas water supply	7.2	7.5
Constructions	1.7	3.6
Trade, hotels, transport, communication	7.8	8.7
Financial, real estate & professional services	5.7	7.3
Public administration, defence & other services	11.3	9.4
GVA	6.6	6.1
Source: Indian Express[28]		

Agriculture Sector – Immediate Attention Needed

According to advance estimate from CSO data, agriculture would be growing at 2.1 percent in 2017-18 compared to 4.9 percent in the previous year. This is not a good sign given the fact that India had a normal monsoon and was preceded by two below normal monsoons. Usually, after a drought, agriculture growth is higher due to low baseline level.[29] In addition, the sorry state of affairs is despite the fact that the year 2016-17 has seen record agriculture production (see Figure 1.5). Yet another sorry figure of the agriculture growth can be seen when it is compared with the overall growth trajectory (please see Figure 1.6).

On export-import front, in recent years India's export of agricultural produces has dipped and import has increased. From 2004-2014 the agriculture exports increased from ₹50,000cr to ₹260,000cr, however, it dipped to ₹210,000cr in 2015-16. The agricultural import that was at ₹30,000cr in 2004-05 and ₹90,000cr in 2013-14, reached to ₹150,000cr in 2015-16.[31] This shrinking agri-trade surplus is a cause for concern not only for exchequer but from the perspective of farmers' income. There is a growing demand for making export-import restrictions sensitive to farmers' income.

Figure 1.5: Economic Survey 2017-2018: Foodgrains Production

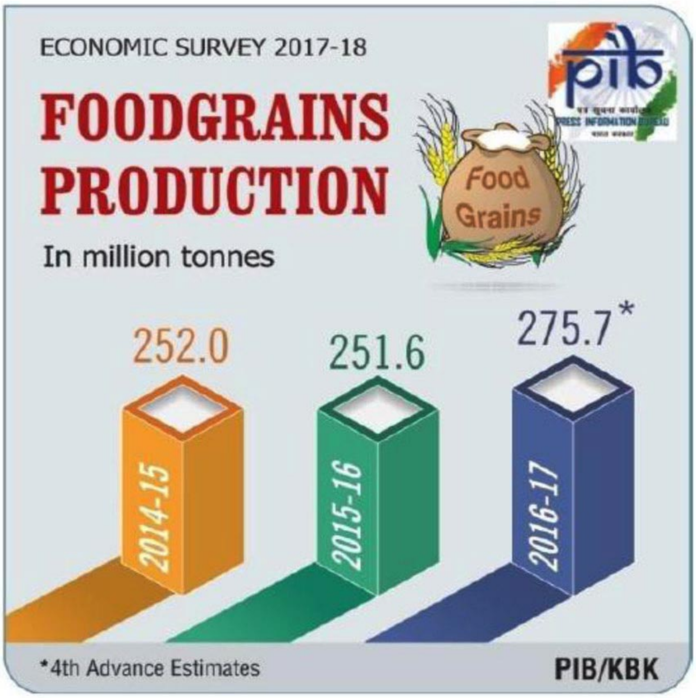
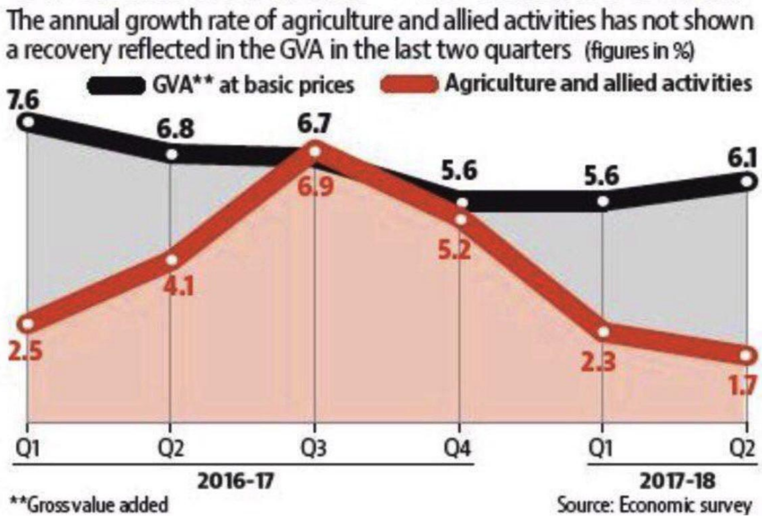


Figure 1.6: Overall Economy vs Farm Sector



Source: Sitaram Yechury[30]

All these signify something wrong with the Indian agriculture, which is particularly worrisome in light of government's target of doubling of farmers' income by 2022. In order to achieve this ambitious target the Government has constituted a Committee on Doubling Farmers' Income (DFI) under the chairmanship of Ashok Dalwai. NITI Aayog is playing a key role towards fulfilment of this promise, including designing of implementation plans based on recommendations of Committee on DFI.

As per a Report by the Committee on DFI, the agricultural sector grew at the growth of around four percent per year during 2004-05 to 2014-15 and the growth was quite impressive as compared to 2.6 percent per annum during the previous decade (1995-96 to 2004-05). The Report attributes this agricultural growth to the price received by the farmers due to hike in MSP, increase in foodgrain procurement, increase in global agricultural prices and strong domestic demand for food.

According to the DFI Committee, to realise doubling of farmers income, the approach to improving rural connectivity, electricity supply and availability of markets to sell the agricultural produce is the need of the hour. The condition of rural infrastructure (roads, irrigation, electricity and markets) in a number of states is a matter of serious concern. Basic infrastructure can improve the total factor productivity, thus, it becomes utmost requirement that basic concerns related to infrastructure are addressed.[32]

The Committee on DFI in an exclusive report[33] on agriculture marketing has observed: "After the first step of reforms, not much was realised in substance and the APMC[34] monopoly continued... Keeping in mind the limited adoption of the first step towards reforming the marketing system, the changed dynamics in the business eco-system, as well as technological advancements, the government has already introduced the next steps to correct certain imbalances... The unified National Agricultural Market and the model Agriculture Produce and Livestock Marketing (Promotion & Facilitation) (APLM) Act, 2017[35] are the precursors to further reforms in the agricultural marketing system."

The Model APLM Act, 2017, that replaced the Model APMC Act, 2003, would now serve as a model law for the states to adhere to. The Model APLM Act, 2017 provides a progressive and facilitative provision for the integration of processors, exporters, bulk buyers, end users, etc. with farmers and intends towards ease of doing business for private players. The onus now lies on the state governments to get it addressed into their laws and actions.

Unless APMC reform is done by the states based on the model law of 2017, the benefits from eNAM (electronically unification of markets around the country) would not be much, particularly to farmers. The Committee on DFI also notes that "the vision of a full-fledged national agricultural market is where all types of markets have inter-operability in communication, standards, systems, operating under a common regulatory framework. This can happen when all markets, including alternate models of markets, established or notified as such under the provisions of the model APLM Act 2017, whether in private or public sector, come online and adopt a common electronic platform; for electronic alone has the capacity to transcend the barriers of physical space and integrate the geographically distributed multiplicity of markets."[36]

Furthermore, the latest report[37] by the Committee on DFI suggests an overhaul of the Union Agriculture Ministry, setting up a three-tier planning and review mechanism through district, state and national level committees. It also advocates for an annual ease of doing agribusiness survey to evaluate states on different reform parameters, which is expected to position the states appropriately and help them attract needed investments, while making farming itself facilitative and competitive. The report further suggests adopting a liberalised land leasing policy to recognise tenant farmers, contract farming, freeing up of agricultural markets and strengthening decentralised procurement of crops by states.[38]

Viewing the deteriorating agriculture sector indicators (largely termed as agrarian crisis), question is being asked whether DFI by 2022 be achievable.

According to the DFI Committee, the real incomes of farmers need to increase at compound annual growth rate (CAGR) of 10.4 percent to achieve this target. It has been calculated (Gulati, 2018) that during 2012-13 to 2016-17 the real incomes of farmers has increased at CAGR of 2.5 percent only. To leapfrog from 2.5 percent to 10.4 percent is the real challenge.[39]

The Economic Survey 2017-18 also flags concerns about agriculture, which include: decline in rural wages, lower sowing for Kharif and Rabi, unusually lower prices for farmers below MSP. It calls for supporting agriculture as one of the key policy agenda. The government has also responded to it in the Budget for 2018-19, where it has endeavoured to enhance the MSP for farmers to cost+50 percent formula. However, some confusion has remained on the 'cost' that would be taken for the calculation of MSP. The government has also asked the *NITI Aayog* to devise an appropriate mechanism to compensate farmers whenever the market price is below MSP.

As the World Development Report (2008) revealed, growth in agriculture is at least two to three times more effective in reducing poverty than the same quantum of growth in non-agricultural sectors. So, from the standpoint of poverty alleviation, it is an important sector and ought not to be neglected.[40] Lack of profitability is one of the key reasons that today agriculture is not a preferred choice of employment. Most farmers would leave farming if they get job elsewhere. The sorry state of agriculture, for quite a longer time, has directly contributed for people's migration to urban destinations, which is also making Indian cities unsustainable. Things can become worse if the pattern continues.

Manufacturing Sector – Recovering but…

There is an intrinsic link between agriculture and manufacturing sector – both have been producers and consumers for one another. In addition, 'more than half of Indian industrial production comes from the rural areas. Rural construction also accounts for nearly half of the total building activity in the country. The value of rural services is about a quarter of the total services output. Agriculture has accounted for less than half of total rural output since the turn of the century'.[41]

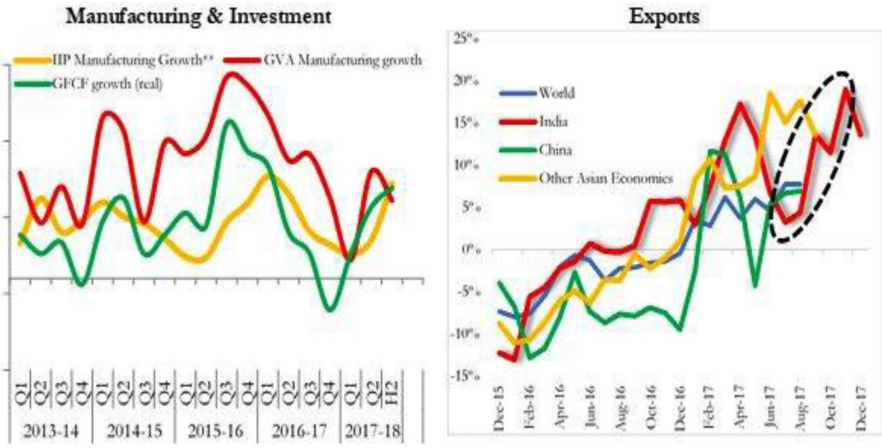
Under the National Manufacturing Policy (NMP), 2011, the government envisaged to increase the contribution of manufacturing from around 15 percent to 25 percent of GDP by 2022. As per the Discussion Paper on Industrial Policy[42] 2017, the present thrust of the government is towards establishing complete value chains, within India or across countries, in select sunrise sectors like renewable energy, food processing, electronics etc. In addition, it seeks to plug the Indian MSMEs into the global value chain.

The said Discussion Paper has also flagged, among other things, 'low productivity'[43] and 'industrial competitiveness' as areas of concerns where India would need to improve upon. Workers in India are overwhelmingly employed in low productivity and low wage activities. To improve industrial competitiveness, the Paper advocates reducing the cost of infrastructure such as power, logistics, easing regulatory/compliance burden, reducing the cost of capital and improving labour productivity.

Be that as it may, the Make in India programme is aiming to put India as a global manufacturing hub. Most of the flagship programmes of the Central government directly or indirectly aims at the revitalisation of the manufacturing sector. However, looking at the ranking of India in the global manufacturing index (as discussed above), more efforts need to be made. More so when India has to catch up and transform its manufacturing sector as per the requirements of industrial revolution 4.0.

Good news is that the data on Purchasing Mangers' Index[44] (PMI) is at a five-year high with 54 percent. But growth in private consumption, which is estimated to decline from 8.7 percent in 2016-17 to 6.3 percent in 2017-18, is a cause for concern for the manufacturing sector.[45] The data presented in the Economic Survey 2017-18, also signals recovery in the manufacturing sector (see Figure 1.7).

Figure 1.7: Manufacturing & Investment and Exports



Source: Economic Survey 2017-18

The major challenges that the manufacturing sector is facing are: skewed labour laws (there are around 45 labour laws combining Centre and states) that leads to harassment and undue government interference in industrial activities; lack of skilled manpower (only 2.5 percent of Indians have received skill training compared to 75 and 80 percent in Japan and Germany respectively); lack of capital, which is also due to high NPAs of banks; complex regulations and taxation laws; lack of technology and R&D (Indian firms spend less than 10 percent on R&D and most MSMEs use obsolete technology hence productivity is low).[46]

Although government is addressing all these under NMP and Industrial Policy as well as through various flagship programmes (i.e. Make in India, Skill India, Digital India, thrust on EoDB, MUDRA Bank etc.), things seems to be moving slowly. On EoDB front scope of improvement is very high. Labour law reform and proper implementation of insolvency and bankruptcy code need also be on priority. In addition, improving productivity and competitiveness of the manufacturing sector remains a concern. All these are necessary to attain full potential of the Indian manufacturing sector. In sum, despite high potential, uncertainty looms large.

Reform Status in a Nutshell[47]

There have been some good initiatives taken by the Government of India on the reform front in the last couple of years, which have been briefly mentioned in the following paragraphs.

National Goods and Services Tax

The national GST combines most of India's state and local taxes into a streamlined tax system, easing compliance, ending cascading taxes, and expediting transportation. GST came into nationwide effect on July 01, 2017. Initial implementation hiccups are being monitored and rectified simultaneously. Also there are continuous efforts to make the GST system more user-friendly.

End Retrospective Taxation of Cross-border Investments

The Revenue Department's ability to retrospectively apply new tax laws was introduced in 2012, which created uncertainty for foreign investors. In 2017, Finance Minister announced in his Budget Speech that the Revenue Secretary would chair a high-level committee that must approve all retrospective tax demands and offered a one-time dispute resolution opportunity for parties to current cases.

Deregulating Natural Gas Pricing

The Cabinet has recently announced a new energy policy that: switches to a revenue-sharing model (from a profit-sharing model); allows substantial pricing freedom for difficult fields; and eliminates minimum acreage requirements for new fields. While not total price deregulation, the policy offers new incentives for private hydrocarbon exploration. Deregulating natural gas pricing will encourage the expansion of private hydrocarbon production.

Direct Benefit Transfer to Deliver Cash and Goods Subsidies

The direct cash payments programmes, such as pensions, and programmes broadly subsidising goods for targeted groups, are being considered to be shifted to Direct Benefit Transfer (DBT) programmes to strengthen targeting and reduce diversion. In this regard, the government has introduced a dedicated portal tracking its efforts to transition to DBT.

However, since the multifarious usage of the Aadhaar number (which is central to implementation of DBT schemes) is under judicial review, clouds of uncertainty has not yet vanished.

Opening up Insurance Sector

The 2016 consolidated FDI Policy allows up to 49 percent investment in insurance through the automatic route. This is a step towards allowing foreign investors to own a majority stake in life and non-life insurance firms.

Opening up Defence Sector

In 2016, India allowed FDI up to 100 percent through the 'government approval' route in defence sector, when it gives access to "modern" technology or for "other reasons".

Opening up Construction Sector

Almost all restrictions on FDI in construction, including minimum built-up space and lock-in period for capital to three years (or earlier), has been removed.

Opening up Real Estate Brokering Service

The government on January 09, 2018 clarified that real-estate broking services are not real estate business and are, therefore, eligible for 100 percent FDI under the automatic route.[48]

Reduction of Restrictions on FDI in Single Brand Retail

FDI in single-brand retail was first opened in 2012, with a restriction that foreign firms must source 30 percent of what they sell from local manufacturers. In 2016, the government allowed FDI up to 100 percent, but investment beyond 49 percent required prior government approval and also required that 30 percent of goods sold in the first five years be manufactured in India. In addition, the local sourcing norms were not to apply for up to three years after the opening of the first store for single-brand retailers of products having 'state-of-art' and 'cutting-edge' technologies and where local sourcing is not possible.[49]

On January 09, 2018 the government approved 100 percent FDI in single-brand retail without the requirement of prior government approval. The government also eased the local sourcing rule for foreign single-brand retailers – for five years, such entities are not required to meet the 30 percent target for local sourcing by their Indian units if they are already doing so for their global operations.[50]

The government, however, has still not defined the 'state-of-the-art' and 'cutting-edge technology', which is required for high-tech companies to open single-brand stores. The government had earlier rejected the application of Apple Inc. to open stores under that provision, holding that its technology is not 'cutting edge'. In August, 2017 the government set up a committee under Secretary, DIPP to clearly define these two terms. The recommendations of the committee have not been made public yet.

Allowing more than 50 Percent FDI in Direct Retail E-Commerce

FDI is allowed in business-to-business e-commerce, and in e-commerce that uses a marketplace model, but the sector is still closed to FDI when companies sell directly to consumers. The marketplace model of e-commerce has been defined as providing an 'information technology platform by an e-commerce entity on a digital and electronic network to act as a facilitator between buyer and seller.'

FDI is not allowed in business-to-consumer e-commerce, unless all items are being sold under a single brand and meet local-content requirements.

Certain manufacturers, engaged in single brand retail, that would be entitled to receive FDI for ecommerce are: (a) an Indian manufacturer which is permitted to sell its own branded product through wholesale retail e-commerce platforms; (b) an Indian manufacturer, who is an investee company, manufacturing in India, in terms of value, at least 70 percent of its product in house, and sources, at most 30 percent from other Indian manufactures; and (c) a single brand retail trading entity operating through brick and mortar stores.[51]

In June 2016, the Indian government had permitted 100 percent FDI in food retail, including retail through ecommerce.

Opening up Coal Mining

Coal mining for public sale was previously the exclusive right of government-owned 'Coal India' and its subsidiaries. With passage of the Coal Mines (Special Provisions) Act, 2015 the sector is open to private, including foreign, investment.

Establishing Process of more Thoughtful Financial Regulation

In 2013, the Financial Sector Legislative Reform Commission (FSLRC) called for stronger regulatory interventions. These should include the purpose of new regulations, create a mandatory notice and comment period, and carry out impact studies of new regulations. This includes clearly stating the purpose of new regulations. The Ministry of Finance set up a Task Force that came out with a Report proposing the structure of a new Financial Redress Agency (FRA). The FRA will act as a consumer regulator of the financial services industry. However, the same is still pending to be implemented since last year.

The Reserve Bank of India committee has also reiterated in its report on financial inclusion that: "A unified FRA be created by the Ministry of Finance as a unified agency for customer grievance redress across all financial products and services which will in turn coordinate with the respective regulator." According to the report, the FRA should be present in every district in India where customers can register their complaints over the phone, using text messages, the Internet, and with the financial services provider directly, who should then be required to forward them to the redressal agency.[52]

Easier and Quicker Bankruptcy Process

The long process of winding up bankrupt companies contributes to overall legal paralysis, and locks up assets and intellectual property that could be deployed elsewhere. To address this, the new Insolvency and Bankruptcy Code, 2016 is being implemented.

Removal of Sectoral Investment Limits

India historically reserved dozens of products and sectors for small and medium businesses. The rules prevented successful businesses manufacturing these goods from expanding and limited their access to capital. In 2015, the government removed the last 20 products that were reserved for small scale industries.

Privatising Air India

On January 09, 2018 the government allowed foreign airlines to buy a stake of up to 49 percent in Air India with prior government approval ahead of the state-owned airline's proposed privatisation.[53] Earlier rules allowed foreign airlines to own as much as 49 percent in private Indian airlines, but not in Air India.

Allowing FIIs and FPIs to Invest in Power Exchanges

Power exchanges, registered under the Central Electricity Regulatory Commission (Power Market) Regulations, 2010, were allowed to raise up to 49 percent FDI through the automatic route. Foreign Institutional Investor/ Foreign Portfolio Investor (FII/FPI) participation, however, was restricted to secondary market only.

On January 09, 2018 the government allowed FIIs and FPIs to invest in power exchanges through the primary market.

APMC Reform

Agriculture marketing being a state subject, the Centre came out with Model law for the regulation of agriculture produce market. In 2017, the Central Government replaced the Model APMC Act, 2003 with Model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017 (or the Model APLM Act, 2017). Now it needs to be advocated with the states to get their specific laws to incorporate the changes suggested.

The new model law advocates for greater freedom of operation for private markets. This is necessary for inducing competition among the buyers of the agriculture produce, consequently helping farmers in better realisation of crop prices. The changes suggested in the new Model law are also necessary for realising the aims of e-NAM (electronic National Agriculture Market).

Reports on Competition and Regulation in India

CUTS, in association with New Delhi-based CUTS Institute for Regulation & Competition (CIRC), has been publishing biennial reports on the state of competition and regulation in India. The reports are designed to undertake reviews of level of competition and regulation to assess functioning of markets in the country. This is desirable given the existence of distortions in economic management of the country that impede realisation of competitive outcomes. The objective is to improve the quality of regulation and enhance the level of competition in select sectors of the economy through research, network and advocacy based on research findings.

Five reports (2007, 2009, 2011, 2013 and 2015) have been published till date. A systematic approach has been adopted to identify the areas and sectors which the reports cover, while also adapting to the changes in competition and regulatory environment in the country and taking into account findings of the previous reports.

While the 2007 report dealt with competition issues in general, the 2009 report made a transition to deal with regulatory issues and assess the interplay between regulation and competition in select sectors. In the process of determining what impedes efficient economic regulation, the 2011 report dealt with the constraints in efficient regulatory policy delivery and competition distortionary policies, and made relevant suggestions to improve the policy delivery process.

The 2013 report dealt with how faulty regulatory design impedes efficient economic regulation, deals with interplay between competition and regulatory design, and makes suggestions to achieve better economic regulation. The 2015 report was devoted to the infrastructure – physical, social, financial and technological as well as included some cross-cutting competition and regulatory issues.

The ICRR 2017 deals with IPR-Competition interface as well as optimal regulation which are necessary for achieving SDGs through innovation. In the report the sectors covered are: agriculture marketing, GM cotton seeds, ICT and DFS. A chapter is also devoted on how competition policy can help achieving SDGs.

Provided below is a brief summary of the hitherto published reports.

Competition and Regulation in India, 2007

The 2007 report[54] dealt with the subject of regulation in telecommunications, electricity and social sectors (healthcare and education) with a broad brush, while discussing the need for competition policy and law, its evolution in Indian context and throwing light on anticompetitive practices prevailing in India.

The report outlined rigorously the rationale for a competition policy and law — the need to tackle anti-competitive practices and discourage the use of unfair means by firms against consumers, and the need to inculcate a competitive spirit in the market. The policies of the Central Government were also evaluated by the report in terms of their tendency to generate anticompetitive outcomes.

The report called for level playing field for imports to promote competition, pushed for privatisation and disinvestment to replace public sector monopolies, and suggested a wider civil society involvement in the issues of competition and consumer protection.

Competition and Regulation in India, 2009

The 2009 report[55] made transition from competition to regulation as primary focus. It went much beyond depicting the state of the world in sectors and pinpointed the institutional and other root causes of the state in several sectors. The report took a more focussed sector-specific approach, by discussing competition and regulation issues in agriculture markets, power, ports, civil aviation and higher education sectors.

Political economy and implementation issues formed important part of the 2009 report. Each sector study commented on the appropriateness of the regulation, assessed modalities involved in implementation, and conducted competition assessment of regulations to look at ways in which the laws restrict or promote competition.

The report called for greater functional and financial autonomy in regulation of sectors. It highlighted political economy factors as source of substantial competition and regulatory distortions and the need for negation of pressures exerted by vested interest groups to figure prominently in the reform agenda. It concluded that entry barriers existed in all sectors to some degree which could at least be partially attributed to lack of regulatory independence and political economy factors. It recommended that negation of pressures exerted by powerful vested interest groups as well as facilitation of independence of sector regulators are two related tasks which should figure prominently on the agenda of reformers.

Competition and Regulation in India, 2011

The 2011 report[56] assessed the need for and status of regulation and competition in select sectors, the importance and effectiveness of regulatory institutions/processes, and awareness of competition and regulation issues among consumers and other stakeholder groups. The sectors covered by the report were microfinance, natural gas, real estate and residential housing, retail distribution, public road (passenger) transport and telecom.

In addition, the report looked at some thematic issues, namely political economy of regulation, essential facilities doctrine, with the objective of creating awareness about the functioning of the extant regulatory systems in the country and identifying possible methods of improving the current system.

The report highlighted that interference by government functionaries/ ministries and their political masters continue to emasculate many regulators, and have made their role irrelevant, and thus called for reducing the administrative and political interference in regulators' functioning. It also concluded that institutional issues such as overlapping jurisdiction with the CCI, and effective coordination with other regulators should be addressed in a definitive manner so that regulators function as per their mandates, and that transparent and simple regulations (and/or reduction of regulatory complexities) that establish basic rules for fair competition should be developed and implemented. It also emphasised on the importance of open access in improving operational efficiency and promoting competition in infrastructure sectors.

Competition and Regulation in India, 2013

The environment created by the bleak economic scenario, inactive regulators, but government's openness of being receptive to suggestions and adopting reforms provided an opportunity for a comprehensive review of regulatory process, and more importantly, regulatory design of Indian economy.

The 2013 report[57] was a step in this direction. It reviewed the design of regulatory process of key economic sectors of Indian economy. Indian economic sectors are dominated either by public or private sector firms. Such dominance in the sectors is the key feature which determines the state of sectors, prevailing competition, and consequently becomes necessary to determine the regulatory architectural model. Thus, while considering sectors for review, an appropriate mix of public-sector dominated as well as private-sector dominated sectors was selected.

As a result, the sectors selected for the 2013 report were coal and railways, dominated by public sector, and finance and healthcare, wherein competition exists between public sector and private sector firms. In addition, dedicated sections on regulatory independence and regulatory conflicts were also included in the report.

Competition and Regulation in India, 2015

With an ambitious development agenda, India needed to increase reform process to bridge the yawning infrastructure gap, improve FDI and unlock private investments, and make Indian firms globally competitive. In light of this and to ensure that reforms are inclusive and sustainable, not only the physical infrastructure but also social, financial and technological infrastructure needed improvements. Therefore, the 2015 report[58] selected one sector in each of these infrastructure categories for analyses, viz., higher education, highway, banking and broadcasting.

This edition also covered some cross-cutting additional issues, viz. (a) independence and competence of regulatory institutions; (b) call for competition in multilateral trade discussions; and (c) problems faced by young competition authorities from India's merger review regime.

Overview of the 2017 Report

Indian economy is growing at a considerable rate and has a huge potential to grow at a much better rate, but to make it sustainable and inclusive, reforms are needed. Particular focus need to be given on agriculture sector as its rate of growth and its contribution in GDP are on declining trend. Similarly, manufacturing sector, in particular need to transform to get into the band wagon of Industrial Revolution 4.0 and DE. Above all 'innovation' would be the key to achieve all these.

When it comes to 'innovation' at least two policies come into play, viz. IP policy and Competition Policy. While former gives protection to the investments made for innovation, latter yields desired competitive pressure to introduce innovative products in a market. Therefore, a balance of these two policies is *sine qua non* for a dynamic economy. In addition to it the market/sectoral regulations need to be optimal – neither too strict nor too soft, but optimal to achieve the desired regulatory objective. In other words, regulations should not tend to retard competition. This also came out vividly in the 2017 CUTS Biennial Competition, Regulation and Development Conference.[59]

In light of the above, the ICRR 2017 brings on table some good insights for the polity to improve upon the economic growth as well as keep it sustainable and inclusive. The ICRR 2017, through various substantive chapters, presents insightful analyses of agriculture market reform, IP-Competition interface in two sectors (GM Cotton Seeds and ICT sectors), regulatory analysis of digital financial services and establishing a link between competition policy and SDGs.

The SDGs, adopted by the international community in 2015, directly or indirectly has been kept in mind while selecting various chapters of the ICRR 2017. Agriculture sector, where majority of Indians are dependent, has been looked upon in two chapters – one relates to agriculture market reforms; and the other deals with recent contentious legal issues related with the interface of competition, IPR and price control in GM cotton seed sector.

Similarly, the relevant issues with respect to optimal regulation, innovation and competition have been dealt in two chapters – one addresses the issue of SEPs in the ICT sector that has direct implications on local mobile industry; and the other analyses regulatory impediments in DFS – having bearing on local manufacturing and jobs as well as financial inclusion. Both are necessary elements of SDGs.

Last but not the least, the final substantive chapter directly links SDGs with competition policy and establishes how competition reforms can be a useful tool in achieving the same.

The findings and recommendations in different chapters are summarised below:

Chapter 2 on Perception and Awareness Reporting

The perception and awareness survey on competition and regulatory scenario in India is being conducted biennially by CUTS for this publication. The survey is done mainly to gauge the level of awareness on competition and regulation among the members of civil society, academia, bureaucracy, industry, media and various sectoral experts in the country. It aims to examine the quality of regulation along with nature and impact of various government policies/measures on existing regulatory regimes from the stakeholder perspective. Similar surveys were conducted previously in 2007, 2009, 2011, 2013 and 2015.

Overall competition scenario in the country was found to be above average as expressed by the views of informed stakeholders participating in the survey. This was visible owing to the choices available to consumers in various products and services at affordable prices. Consumers were also conveniently able to acquire large number of utilities. However, services that were still being managed by the public-sector utilities, were a bit difficult to get access, as compared to services being provided by the private sector.

The results further reflect that the stakeholders are still bit ignorant about the nature of market practices on competition and regulatory aspects. Many of the respondents were still not aware of issues pertaining to anticompetitive practices. It is quite evident from the survey results, wherein approximately 37 percent of the respondents felt that tied selling was not always inappropriate and sometimes it was good, as it ensured quality. However, during interaction, they were unaware of its long-term disadvantages to the market and more importantly to consumers. Furthermore, 25 percent of respondents believed dominance of firms does not affect the consumers. In case these firms begin to abuse their dominance, it would become a matter of concern as it might lead to the exploitation of consumers.

When it comes to the effectiveness of regulatory agencies, the survey reveals that in many cases, these agencies have not been very effective. The effectiveness of these agencies is essential for fair competition to prevail in the market and for that they need to be independent and autonomous.

Chapter 3 on Implications of Competition Reforms in Wheat Sector on Consumers and Producers in Bihar and Rajasthan

This chapter, based on the findings of a larger CUTS project entitled "Competition Reforms in Key Markets for Enhancing Social and Economic Welfare in Developing Countries" (CREW), attempts to unravel competition concerns in wheat sector in Bihar and Rajasthan. It underscores some of the key competition reforms undertaken in Bihar and Rajasthan and attempts to map the implications of the same on consumers and producers through primary and secondary data.

The findings suggest that agriculture market reforms can facilitate agriculture produce trade by removing competition bottlenecks, which will eventually help farmers realise better prices for their produce. A detailed competition assessment of the Model APMC Act, 2003 is annexed to the chapter, which provides clause-by-clause impediments to competition. These findings clearly suggest that states should adopt agriculture market reform without delay. A new Model law adopted in 2017 does make improvement over its 2003 counterpart.

The chapter also analysed reforms in seed sector as well as public procurement practices. It finds that reforms in seed sectors can help bringing benefits to producers (seed companies) and consumers (farmers) and leads to increase in seed replacement ratio. It also suggests that near monopoly in public procurement of wheat can be broken by opening the sector and allowing private sector entry.

Chapter 4 on GM Cotton Seeds: Emerging Jurisprudence *vis-à-vis* Competition, Price Control and Patent Licensing

This chapter, dealing with genetically modified (GM) cotton seeds, contains factual illustrations on some recent developments with respect to the licensing of the patented Bt Cotton Technology and presents an analysis of contentious issues arising out of such developments. Such developments mainly include: initiation of case and enquiry by the Competition Commission of India (CCI) and government intervention into patent licensing agreements. The contentious issues include: jurisdiction of CCI on the matters related with patent technology and its licensing; government intervention and regulation of patent licensing agreements; and licensing of gene patents on FRAND (Fair, Reasonable and Non-Discriminatory) terms in seed sector.

It may be noted that the only GM crop that has been approved for commercial release in India is Bt Cotton, for which the approval was first given to Monsanto in 2002. Subsequently, many Indian seed companies began producing Bt Cotton seeds, after obtaining license for Bt Cotton Technology from Monsanto, in consideration of an upfront one-time fee and a recurring fee called as 'Trait Value'. This "fixation or determination of GM trait value and its licensing" has been the trigger for various interventions by central and state governments and central point of disputes between Monsanto and its licensees.

The findings of the analysis in the chapter suggest that the CCI does have and need to have jurisdiction when patent licensing agreement is abusive and anti-competitive. It also finds that the government is legally justified in intervening into patent licensing agreement and determining the royalty etc. when the product in question is an essential commodity, but it needs to guard against populist moves. The chapter further suggests that in the case of conflict between two IP laws, the government should adhere to the recourse given under National IPR Policy i.e. by consensus in the best interest of public.

Chapter 5 on Fair Reasonable and Non-Discriminatory Licencing for Standard Essential Patents and Competition with Special Reference to India's ICT Sector

As the title suggests this chapter puts forward an analysis on licensing of Standard Essential Patents in the ICT Sector and consideration of FRAND terms in the same.

Licensing of patents which have been inculcated into standards (known as Standard Essential Patents) poses a unique situation where the manufacturing of devices necessitates the inclusion of a particular patent or a group of patents. From this follows the natural corollary that licensing of SEPs becomes inherently different from licensing of a regular patent and the same might in some circumstances raise anti-competitive concerns in the industry such as patent hold-up, patent hold-out etc.

The chapter suggests that if these concerns, which also pervaded the Indian ICT industry, are not tackled through an optimal policy and adjudicatory approach, it can lead to several distortions to competition and innovation. There is emerging consensus amongst competition authorities across the globe that violating commitments to license SEPs under FRAND terms can pose a significant threat to competition. It makes the following recommendations:

- In antitrust cases, the objective of the court should, however, be to protect the essence of the FRAND commitment and not to go into deciding the reasonable royalty amount.

- The determination of a FRAND royalty, if at all needed, should depend upon the facts of individual cases. There cannot be a straightjacket formula which can be applied in an overarching manner.
- Policymakers and market regulators should follow a general non-interventionist approach unless there is clear economic evidence to support the competition concerns.

Chapter 6 on Need for Proportionate Regulation of Digital Financial Services in India

This chapter examines the regulations in the digital financial services sector from competition and financial inclusion perspectives. The analysis found them compromising on many fronts and hence makes some suitable policy recommendations for course correction in the sector. The chapter highlights the following competition and regulatory concerns in the digital financial services:

- High entry barriers such as net worth requirements to provide digital financial services like payment banking, prepaid wallets, bill payments, peer to peer lending, among others.
- Restrictive operative conditions for providers of digital financial services.
- Lack of direct access for non-banks to technology and settlement services offered by critical retail payments platform/infrastructure providers.
- Absence of clear guidelines on setting up of retail payments platforms, and banks own majority shareholding in the existing retail payments organisation.
- Lack of indirect access for non-banks to real time gross settlement system run by the Reserve Bank of India (RBI). RBI is operator as well as regulator of payments, a conflict of interest, which needs to be corrected.
- The primary legislation on digital payments does not envisage level playing field between different entities and does not have consumer protection as an objective.
- The financial regulation is entity based and not risk based, which treats dissimilarly placed entities similarly and vice versa, consequently distorting competition.
- The regulation making process does not envisage taking into account evidence or inputs from stakeholders in a structured manner.
- Knee jerk regulatory distortions like artificial caps on fees and other charges, which disincentives expansion of digital financial services.

The chapter suggests an immediate and medium term strategy to be designed in order to address regulatory and competition bottlenecks in the digital financial services sector. Low hanging fruits such as operational and non-regulatory modifications should be immediately implemented followed by regulatory and legislative reforms in a time bound manner. Some of the specific recommendations are:

- Setting up a payments systems advisory committee to ensure structured stakeholder consultation.
- Operationalising payments regulatory board.
- Providing direct access for non-banks to technology and settlement services offered by critical retail payment platform/infrastructure providers.
- Providing indirect access to non-banks to real time gross settlement system run by the RBI.
- Issuing guidelines for setting up of retail payments organisation.
- Conducting competition impact assessment of existing regulations in digital financial services sector and correcting distortions to competition.
- Redrafting primary legislation related to digital payments with level playing field and consumer protection as key objectives.
- Adopting regulatory impact assessment and regulatory sandbox framework in regulation making, in order to adopt risk based/ proportional regulation.

Chapter 7 on the Role of Competition Policy in Promoting Sustainable Development Goals

This chapter endeavours to establish linkage, direct or indirect, between competition policy and attainment of SDGs and finds that competition policy can be an effective tool in the attainment of SDGs.

In order to achieve the 17 SDGs by 2030, it is critical to ensure that all of the useful tools that can be used for this should be fully understood. While general economic policies, which include fiscal and monetary policies, are expected to be pivotal in the attainment of the SDGs, they should also be complemented by other policies. This chapter assess the extent to which competition policy can be used as a tool for the attainment of the SDGs.

Competition policy refers to a package of reforms, measures and tools that government can put in place to have an impact on competition in the local market. Thus competition policy can be very broad, resulting in their interaction with several other government policies, objectives and programmes. It is within this context that the relationship between competition policy and SDGs has been assessed in this chapter.

Conclusion

In conclusion, some findings on India's competition and regulatory situation that have been highlighted in the various chapters of this report and that could be common and cross-cutting are:

- To enhance competition (among buyers of the agriculture produce that will help realise competitive prices by farmers), regulatory (APMC) reform is necessary.
- National IPR Policy could be invoked to balance IP and Competition as well as to deal with seemingly conflicting situation of two IP laws.
- Optimal regulation needs to be *mantra* and should be internalised in designing and implementing regulatory regimes.
- Competition policy reforms can be a useful tool in achieving SDGs.

Endnotes

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Chapter 2

Perception and Awareness Reporting

Introduction

The perception and awareness survey on competition and regulatory scenario in India was being conducted biennially by CUTS. The survey was done mainly to gauge the level of awareness on competition and regulation among the members of civil society, academia, bureaucracy, industry, media and various sectoral experts in the country.

This chapter aims at exploring the awareness on competition and regulations in India's business environment. The survey was intended to assess the perception as well as awareness of stakeholders about the competition and regulation regimes prevailing in the country. Changes in the perception over the years by comparing findings of the survey with the erstwhile survey has been done. The survey also assessed the nature and impact of government policies and measures.

Furthermore, the survey assessed perceptions on the level of competition and efficacy of regulatory practices in the country. Similar surveys were conducted previously in 2007, 2009, 2011, 2013 and 2015 respectively.

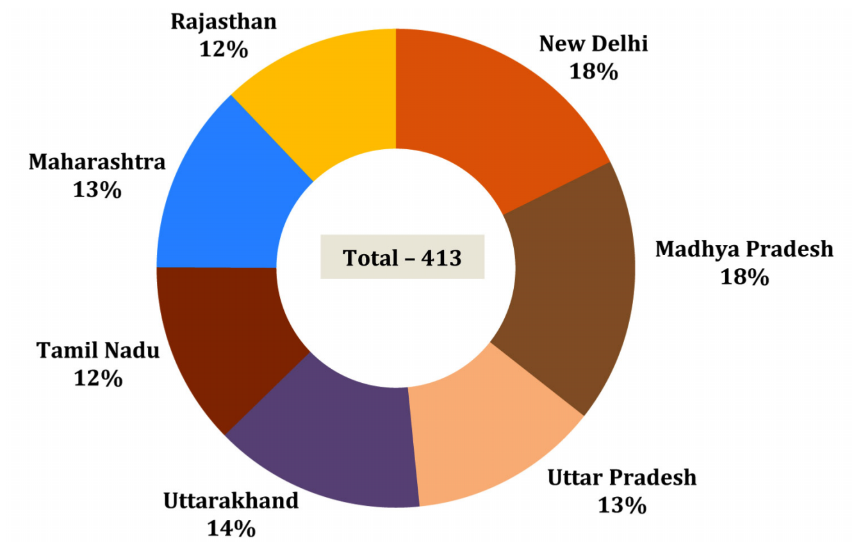
The questions were asked under four self-explanatory heads: 'level of competition' in which respondents were asked about their perceptions of product variety and choice; 'nature of market practices' to gauge perceptions about the pro or anti-competitive nature of prevailing market practices; 'awareness and knowledge of stakeholders' which tested the same; and stakeholder perceptions about the 'impact of government policies' to gauge how supportive policies are towards the generation of competition in the economy

Data and Survey Design

The statistical analysis was based on the data/inputs gathered from structured questionnaires administered to a random stratified sample[1]across various states in India. This method was chosen specifically since it often improves the representation of the sample by reducing sampling errors. The total sample size[2] considered in the survey is 413 from various stakeholders including civil society, academia and media.

The survey includes respondents from seven states across India; however, their number varied from state to state (Figure 2.1). Northern India is represented by New Delhi, Uttar Pradesh, Uttarakhand, west by Rajasthan and Maharashtra, south by Tamil Nadu and central region by Madhya Pradesh. The wider geographical coverage ensures representation from a diverse group of respondents and also identifies (if there exist) the divergences in the awareness and opinion of different (socio-cultural) respondent groups in states/regions. Out of the selected states, maximum response (18 percent) was observed from Madhya Pradesh and New Delhi whereas lowest response was received from Rajasthan and Tamil Nadu (12 percent).

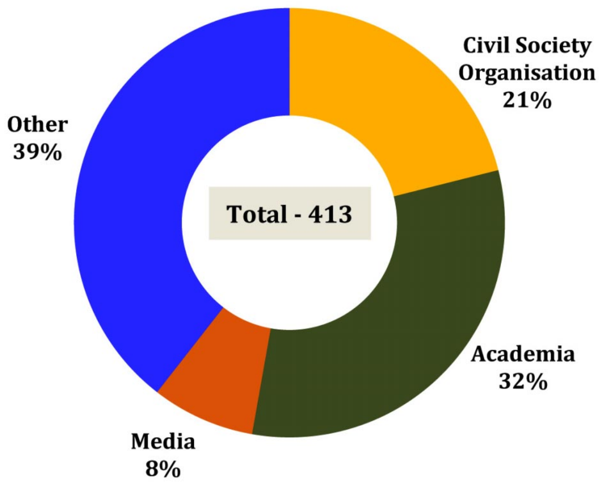
Figure 2.1: Response of Consumers in Indian States



Composition of Survey Respondents

The composition of stakeholders participating in the survey is presented in Figure 2.2. In the current year, the respondents comprise representatives of civil society organisations (CSOs), academia, media and other experts/ practitioners. Nearly 21 percent of respondents were from CSOs, 32 percent from academia and only 8 percent represented media.

Figure 2.2: Compositions of Stakeholders



Analysis of Survey Findings/Results

Level of Competition

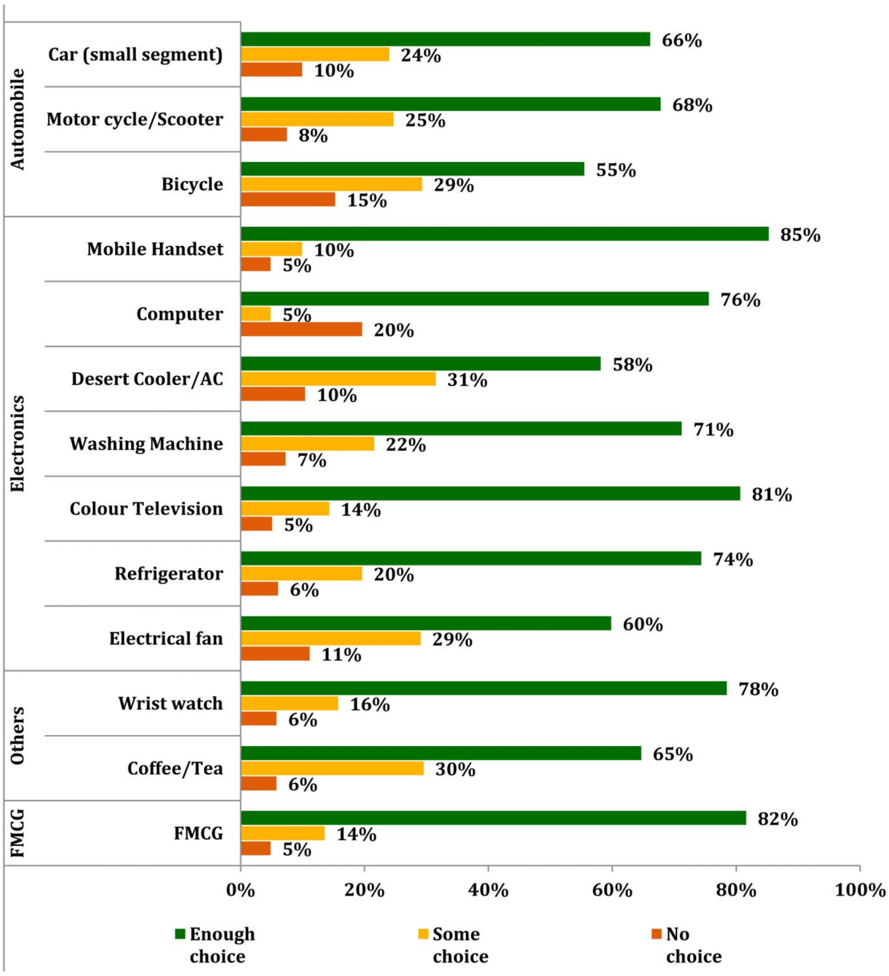
In order to assess the level of competition, the questionnaires were structured to get feedback from the respondents on their awareness and knowledge of: (a) the choices available in the different products in diverse segments; (b) ease in getting essential services/utilities; and (c) quality of services.

Markets work effectively when buyers have a choice of products from multiple suppliers, while firms supplying these products can freely enter and exit the market. However, in markets if there are limited competitors or extreme barriers to entry, firms might be able to ignore their consumers and set excessive prices or offer sub-optimal quality of service. In such markets, there might also be fewer incentives to innovate and develop new products to attract customers, unless there is a threat of new entrants.

Against this background, this section of the survey attempted to gauge the level of competition in the market.

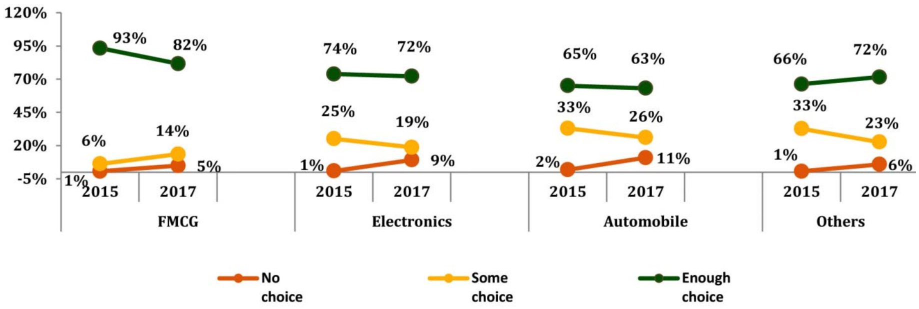
A significant share of respondents indicated that there are enough choices available in the market across range of products that include fast moving consumer goods (FMCGs), consumer electronics including mobiles, automobiles etc. For example, approximately 82 percent of respondents were of the opinion that there were ample choices in the FMCGs category in the market while more than 85 percent indicated that there were enough choices under mobile handset category.

Figure 2.3: Availability of Choices in Various Products



There had been increase in the percentage of 'some choices' available in the FMCG sector. This is may be because of the advent of Patanjali products and people getting shifted towards Herbal and Ayurvedic products. Further, the survey revealed a dip of 11 percentage points in the option 'enough choices' available in the FMCG sector. Overall, the result is consistent with the survey findings of 2015 that showed high competition in various product categories in the Indian market as shown in Figure 2.4.

Figure 2.4: Comparison of Perception in Choices between 2015-2017



Subsequently, stakeholders were asked about the ease of getting various essential services/utilities, such as Liquefied Petroleum Gas (LPG), water and electricity connections etc. The responses received were diverse in nature, while stakeholders were able to get some essential services easily; they faced some difficulties in getting other essential services. For example, getting access to services like opening a bank account, mobile connection, Direct To Home (DTH) connection, debit/credit card was reported to be easy. But getting connections for the key utilities, such as electricity, cooking gas and water were reported to be difficult. Approximately 50 percent respondents revealed that it was difficult to acquire access to such utilities.

Furthermore, respondents cited various reasons for not getting some specific services/utilities. Approximately 38 percent stakeholders felt that the lengthy and complex procedural requirements were the biggest hurdle in getting essential services. Moreover, approximately 25 percent of respondents felt that non-cooperative behaviour of officers had caused major difficulties in availing the aforementioned services. In addition, other reasons cited by stakeholders were lack of clarity in fees charged by utilities, possibility of hidden charges in the agreement, and practice of tied-selling.

However, there has been an improvement in the attainment of the aforementioned services as shown in the Figure 2.6. Obtaining cooking gas and water connections and availing loans have become easier in 2017 as compared to 2015.

Most of the essential services, such as electricity, cooking gas and water connections, etc. which are difficult to obtain are provided directly by the government. These utilities are heavily regulated and consequently less service providers exist in such sectors.

Figure 2.5: Ease of Getting Essential Services/Utilities

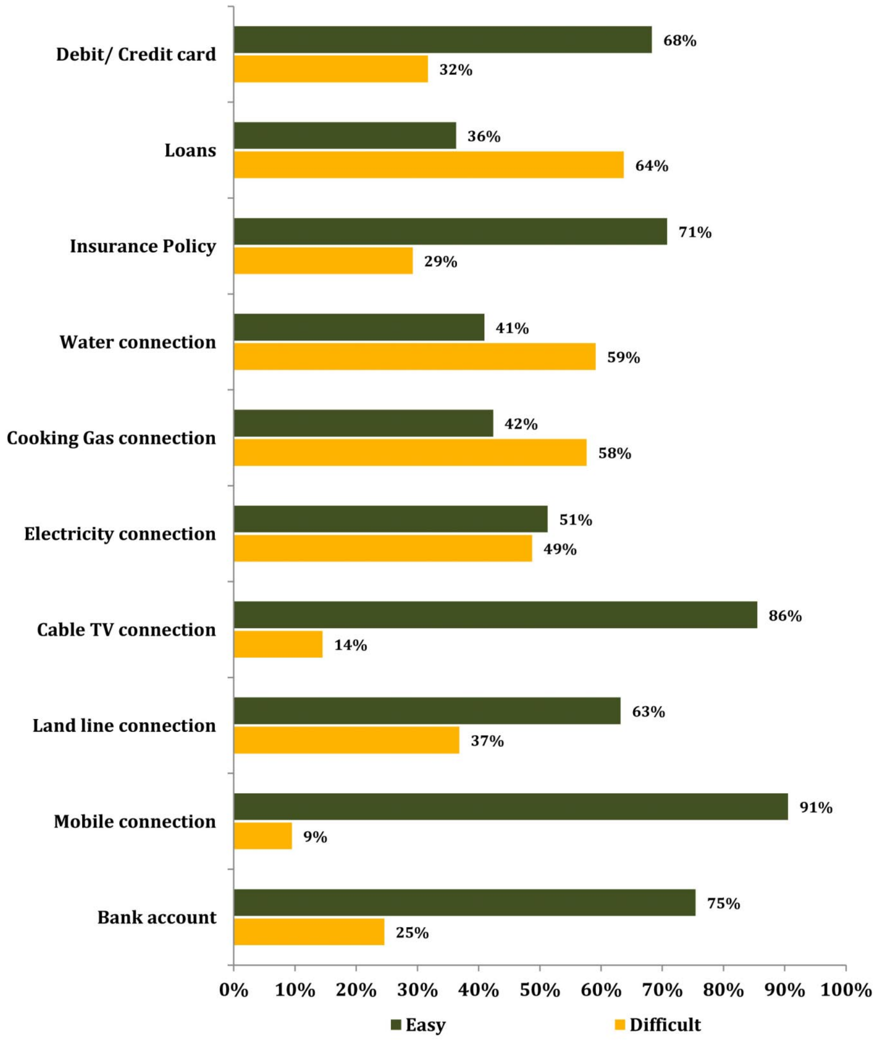
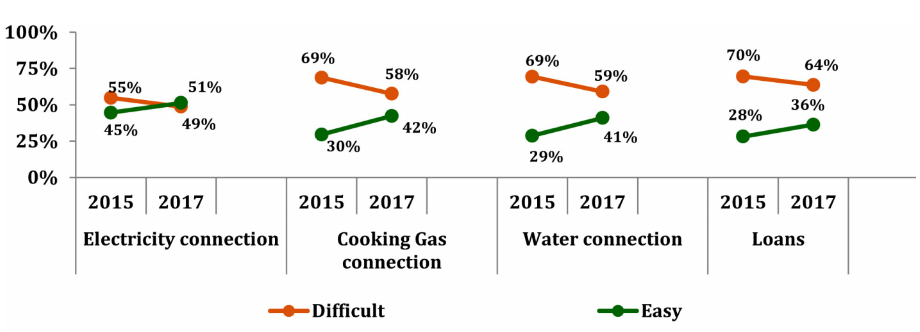


Figure 2.6: Ease in Getting Services in 2017 with Respect to 2015

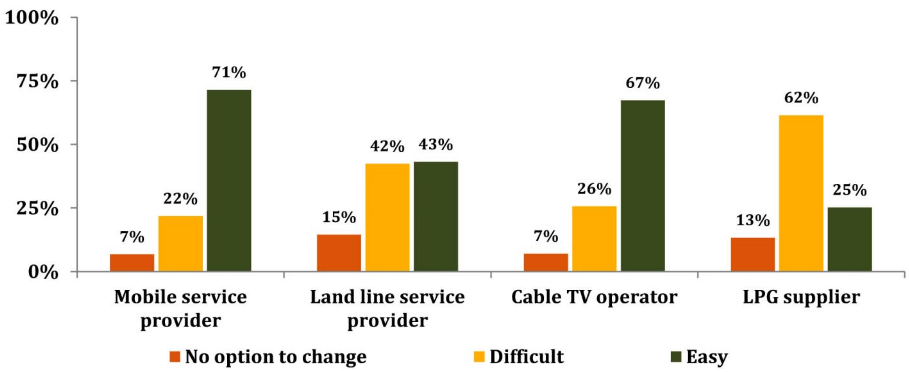


In addition, availing services such as mobile connection, bank account, cable TV connection, insurance policy were extremely easy. Both private and public service providers were providing services to consumers. Thus, it is reasonable to assume that the competition in the sector facilitates better services.

In addition, ease in switching suppliers from one operator/supplier to other, impact competition in the sector. Telecom, cable TV and mobile operators were found to be easy to switch form one operator to other. Further, switching operators among LPG gas suppliers was found to be most difficult; approximately 62 percent of respondents were of the opinion that they faced difficulty in switching services. One of the reasons for this may be limited service providers operate in a locality creating an artificial monopoly.

In addition, government mandates only one connection per household.[3] Further, government directed that it is mandatory to link bank accounts and LPG connection with *Aadhaar* number.[4] However, the cases against mandatory linking of *Aadhaar* number with service utilities are pending in court.[5] Therefore, switching service providers may become tiresome and thus upsurge the difficulty to switch between operators.

Figure 2.7: **Ease in Switching Service Provider**

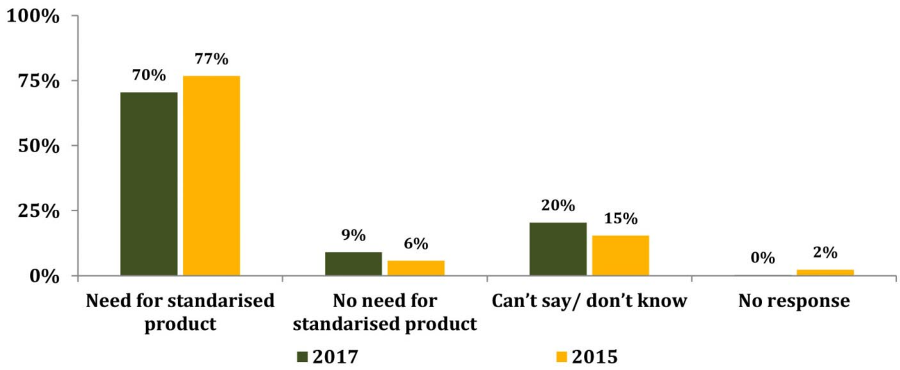


Further, the government has introduced e-application process in most of the services to reduce human intervention and facilitate EoDB. However, the same has been perceived by respondents in case of mobile service provider and cable TV operator.

Approximately 64 percent consumers reported that obtaining loans is difficult. However, some measure had been introduced recently such as peer-to-peer lending which might reduce the difficulty in getting loans in the future.

Furthermore, need for standardised basic products and services in the financial sector were also assessed during the survey. Approximately 70 percent of stakeholders felt that there is a need for standardisation. This requirement had been demanded by the consumers over the years. However, the survey revealed that it has been reduced by seven percentage points as compared to previous report. This may be because of the awareness among consumers had been increased.[6] Therefore, it is reasonable to assume that small chunk of consumers are making informed financial decisions.

Figure 2.8: Need for Standardised Basic Products and Services in Financial Sector



Quality of Services

On being queried about the quality of services, three-fourth of respondents were extremely satisfied with the quality of service received from various utility companies, such as mobile service provider and cable TV provider. Approximately two-third of the total respondents felt that they received good quality of service from mobile service providers and landline operators.

However, approximately one fourth of total respondents felt that the quality of service was poor in electricity, water and cooking gas utilities, as given in Figure 2.9. The quality of service has been improved in sectors, such as mobile telephone, cable TV, cooking gas etc. where there is immense competition in the market. Further, the government has taken various initiatives in the past to improve the quality of service in electricity sector.[7]

Further, respondents were asked about the reliability of public sector banking and insurance companies (such as SBI, LIC etc.) and private banking and insurance companies (ICICI, HDFC etc.). Approximately 53 percent of the total respondents felt safer with public sector companies. It was also revealed that the consumer perception of safety with public sector is increasing as shown in Figure 2.10.

Figure 2.9: Assessment of Quality of Services

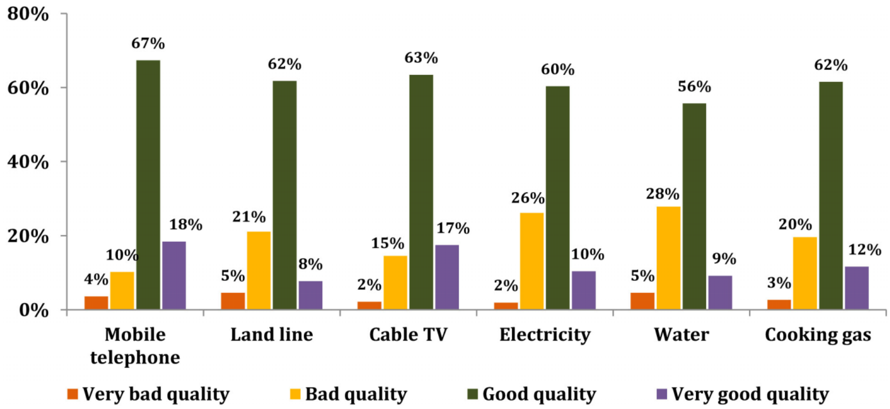
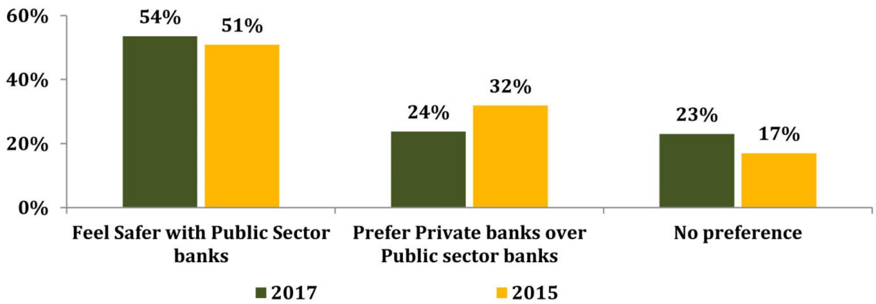


Figure 2.10: Reliability of Public Sector Bank over Private Bank

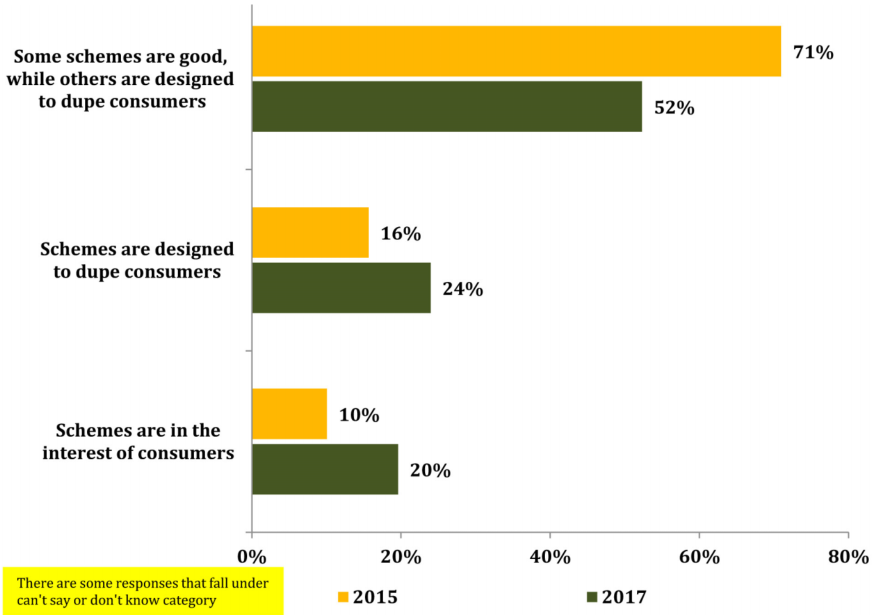


Nature of Practices

A range of questions were asked from stakeholders regarding the nature of practices that are prevalent in the market. The assessment of the practices and functioning of the market has been illustrated.

The respondents were asked about various promotional schemes run by sellers to attract consumers. Approximately 52 percent of respondents felt that while some promotional schemes run by sellers were good, others were designed to dupe consumers. Approximately 24 percent of respondents were of the opinion that schemes from the companies are designed to dupe consumers. Further, it has been reported that such percentage of respondents were increased by 8 percentage points as shown in the Figure 2.11. This suggests that weak market regulations and enforcement standards are prevalent across sectors in the country. One of the probable reasons for this could be that sellers/producers are exploiting consumers with false promises erely to increase their sales.

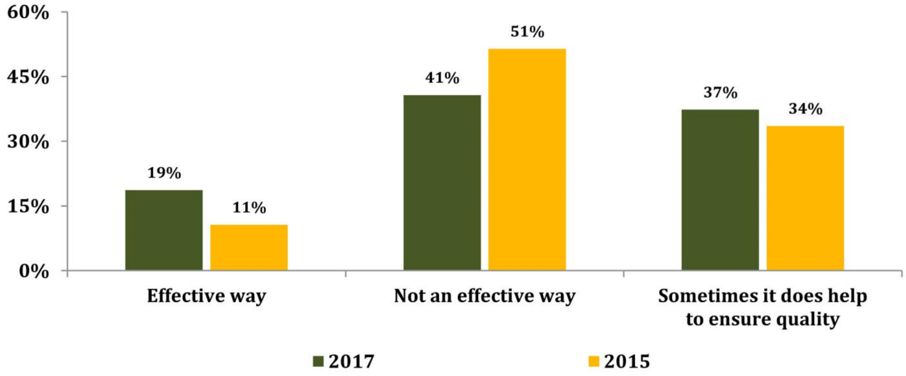
Figure 2.11: Promotional Schemes for Various Consumer Products



In addition, stakeholders were asked about the prevalent practice of tied-selling. This practice essentially means, for instance; doctors ask patients to get various diagnostic tests done from certain specified laboratories; schools ask their students to buy uniforms from the recommended shops/ sellers and so on. Approximately 41 percent of respondents revealed that such practice was inappropriate. However, there has been a dip of 10 percentage points about it being inappropriate as compared to previous ICRR survey.

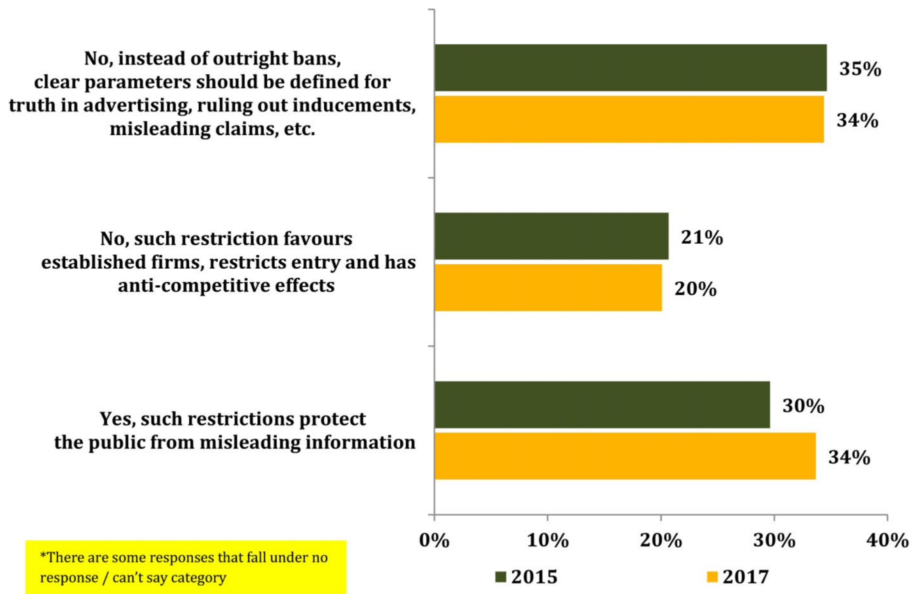
However, it was found that perception around tied practices have been changed, as shown in Figure 2.12, compared to previous survey. Approximately 37 percent of respondents indicated that such practice may be acceptable sometimes because it may help in ensuring quality while approximately 19 percent of respondents opined that such practice was an effective way to ensure quality. In 2015, approximately 11 percent of the respondents felt that tied selling is an effective practise to ensure quality of service and product. Interestingly, there has been an increase in 8 percentage points as compared to 2015.

Figure 2.12: Perceptions on Prevalent Tied Selling Practices: Effective Way to Ensure Quality



Subsequently, the stakeholders were asked about their opinions on the restrictions on advertisements from professionals like doctors, lawyers, and chartered accountants. Similar to the previous ICRR survey results, as shown in Figure 2.13, approximately 34 percent of respondents opined that instead of outright ban on advertising certain professions (medical, accounting, legal), certain parameters should be defined for fair advertising. This may rule out any misleading claims and unfair practices. Approximately 34 percent revealed that such restrictions protect the public from misleading information.

Figure 2.13: Restriction on Professions from Advertising



Furthermore, it has been observed that certain industries in India are characterised by one or two dominant firms, such as airlines, pharmaceuticals etc. The dominance of such firms leads to the restriction of competitive markets. Firm that controls at least half of the market in which it operates has no significant competition. The competitors for such firms are typically small firms who compete with each other for the remaining market share. This indicates that it is high time to review such restrictive policies because market efficiency will be compromised in the absence of free competition.

Subsequently, respondents were asked about their views on such dominance. Interestingly, half of respondents were of the opinion that the emergence of dominant position of firm is a matter of concern. Approximately 25 percent were of the view that such dominance does not affect the relevant market. Therefore, it can be assumed that market forces would ensure optimum competition in the sector. Approximately 26 percent revealed that such dominance was an outcome of the presence of natural monopoly owing to the nature of the industry/technology *per se*.

Awareness on Competition and Regulatory Issues

An effective competition regime creates an environment which maximises the welfare of consumer as well as producer by bringing in allocated, static and dynamic efficiencies. Competitive markets bring greater choices and affordability to consumers, however, anticompetitive practices in the market place might affect the benefits. In this section of the survey, a range of questions were asked to stakeholders regarding their level of awareness on such competition and regulatory issues in India.

The respondents were asked about the level of awareness of the Competition Commission of India (CCI). An overwhelming 41 percent of respondents stated that they are aware of the same while stating different reasons for the existence of CCI. Some of the reasons revealed by respondents for the existence of CCI were; to promote competition amongst manufacturers and retailers (24 percent); investigate anti-competitive action (21 percent); to combat monopolistic trade practices (17 percent); and monitor competition of Stock Market (10 percent).

These findings indicate that the visibility of the CCI has improved over the years. CCI has also made several visible contributions to the economy.[8] CCI, being the only cross-sector regulator in India has been tasked with ensuring optimum competition in the market. In addition, it has whipped down cartelisation, abuse of dominance and monopolistic mergers & acquisitions (M&As) of mighty private firms and state-owned behemoths.[9]

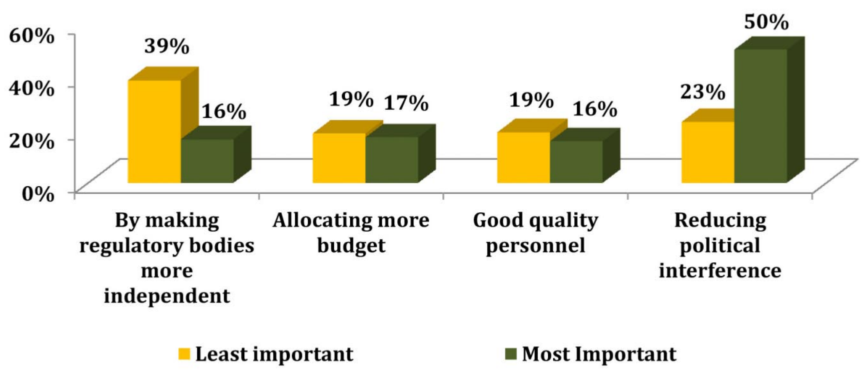
However, establishment of regional/state level benches of commission might be an effective way to further increase awareness and get access to consumers. Hence, stakeholders were asked about the effectiveness of the existing regulatory institutions such as CCI, and consumer forums in addressing anti-competitive and other unfair practices. Approximately 61 percent revealed that such institutions are sometimes effective in addressing anti-competitive practices. However, approximately seven percent of respondents cited that such institutions are not effective at all.

Further, on being inquired about the role of the regulator, approximately 57 percent stated that a regulator's role is to develop and implement rules that can create a competitive environment in the market. Approximately 10 percent felt that the regulator's role is to expedite business and related activities.

In addition, assessment of independent regulators in enforcing regulatory orders and provisions at the various levels has also been done through surveys. The findings reflect that approximately 58 percent of respondents believed that at times but not always, independent regulators have been effective in enforcing regulatory orders. Approximately 17 percent were of the opinion that they are always effective in enforcing such orders.

However, stakeholders also believed that there is a need to improve the quality of regulations. Approximately 16 percent felt that it can be done by enhancing independence of regulatory bodies and capacitating them with able human resources. Approximately 50 percent felt that quality of regulations can be improved by reducing political interference in the functioning of such institutions. In addition, there had been instances in the past where politicians influence regulators and consequently decision making process.[10] Thus, it could be inferred that regulatory bodies should have administrative independence in order to minimise political interference.

Figure 2.14: How can the Quality of Regulation be Improved?

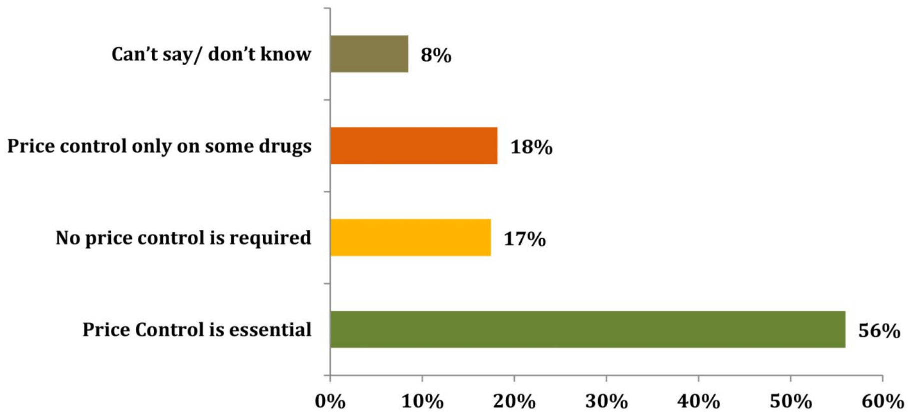


Approximately 17 percent respondents believed that allocation of more budgets to regulatory bodies will further improve the quality of regulatory decision making. These findings show that financial and administrative independence of regulatory bodies and reduced political interference is important than allocating more budget and other resources. Further, these findings are congruent with the findings of 2015. Perception survey, which shows that reducing political interference, should be the topmost priority for improving the quality of regulations in the country.

Nature and Impact of Government Policies/Measures

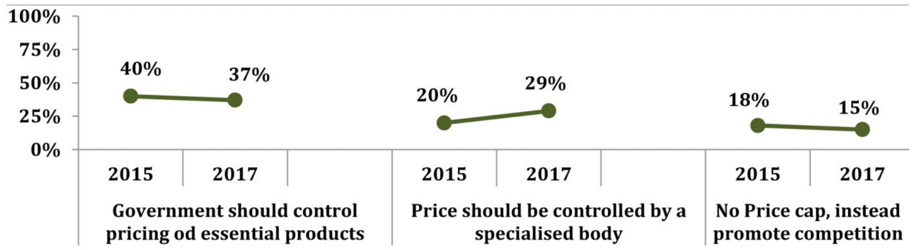
A range of questions were asked to stakeholders regarding the nature and impact of government policies on existing regulatory mechanisms. For example, India has experimented with the price control of select essential drugs including those used for the treatment of cancer, pain, heart conditions and skin problems amongst others. The stakeholders were asked about their views on such price fixing on essential drugs. An overwhelming 56 percent of the total respondents said that such price fixing mechanism of essential medicines was indeed reasonable to protect the interest of consumers from high prices.

Figure 2.15: Price cap of essential drug



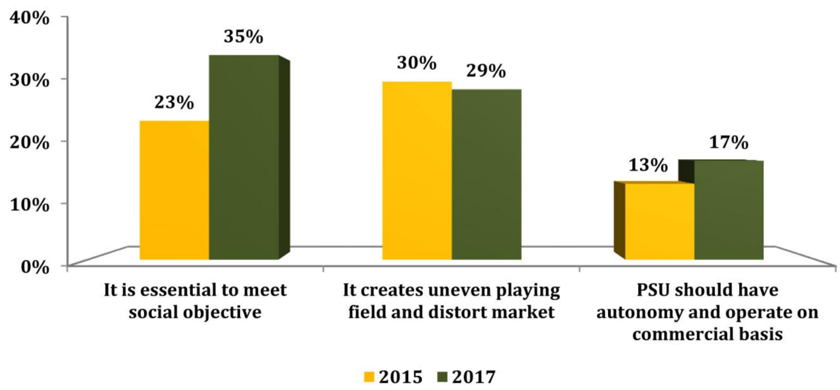
Subsequently, the survey findings show that approximately 37 percent of the total respondents believed that the government should control the pricing of essential commodities. However, approximately 29 percent believed that it should be controlled by a specialised body, such as patents authority.

Figure 2.16: Should Government Fix Prices for Essential Commodities to Protect Consumers?



In addition, the survey finding suggests that approximately 35 percent believed that the government's policy giving preference to public sector undertakings (PSUs) over private sector is essential to meet their social objectives. However, 29 percent of respondents disagreed with such policies, as it creates uneven playing field for other competitor and distorts the market. Further, approximately 17 percent of respondents revealed that the government should provide PSUs autonomy and allow them to operate independently on commercial basis.

Figure 2.17: Respondents Perception on Government's Policy of Giving Purchase Preference to PSU in Procurement



Recently, several retired senior bureaucrats have come under the scanner for accepting key positions in government bodies after their retirement, but the trend is not limited to the bureaucracy alone. Over the past few decades, retired judges of the Supreme Court and high courts had become head or serve as members of multiple commissions, tribunals or quasi-judicial bodies. While some of these retired bureaucrats and judges have done stellar work in their new stints, experts and observers have contended that some of these appointments are nothing more than post-retirement doddles.

The respondents were also asked about their views on provision of appointing retired bureaucrats and judges as regulators. Approximately 49 percent of the respondents indicated that such appointments were inappropriate as it dismisses the appointments of more deserving professionals and reduces regulatory effectiveness. However, approximately 37 percent responded that such practice will allow regulators to maintain a congenial relationship with government and enhance regulatory effectiveness in the country.

Finally, the respondents were asked whether policy directives/fees and charges announced for the public welfare by a Ministry/Department affected the functioning/autonomy of a regulator or not. Approximately 34 percent of total respondents stated that these actions interfered in the functioning of the regulator and reduced their independence and autonomy. About 24 percent felt that these actions sometimes amounted to interference but at times helped in the development of the sector. Approximately 19 percent stated that policy directives do not affect the functioning of a regulator.

Conclusion

Perception and awareness survey is a key component of ICRR and carries out in each cycle to gauge the perception of stakeholders on prevailing competition and regulatory scenario in India. The highlights of the current survey results are:

Level of Competition

Overall competition scenario in the country was found to be above average as expressed by the views of informed stakeholders participating in the survey showing neither too good nor too bad, but fair. This was visible owing to the choices available to consumers in various products and services at affordable prices. Consumers were also conveniently able to acquire access to large number of utilities. However, services that were still being managed by the public-sector utilities, were a bit difficult to get access, as compared to services being provided by the private sector.

Thus, these findings clearly indicate that the regulatory regime in the country is weak and needs to be strengthened not only for securing consumer welfare but also for attaining greater economic efficiency, and ensuring availability of key services. There were various problems reported by consumers, such as uncooperative relationship officers, dubious marketing scheme and inadequate availability of customised and standardised products.

Nature of Market Practices/Awareness

The results reflect that stakeholders are still bit ignorant about the nature of market practices on competition and regulatory aspects. Many of the respondents were still not aware of issues pertaining to anti-competitive practices. It is quite evident from the survey results, wherein approximately 37 percent of the respondents felt that tied selling was not always inappropriate and sometimes it was good, as it ensured quality. However, during interaction, they were unaware of its long-term disadvantages to the market and ultimately to end consumers.

Furthermore, approximately 25 percent of respondents believed dominance of firms does not affect consumers. This is a matter of concern as it might lead to the exploitation of consumers, as they are vulnerable to such practices. However, over competition may also adverse impact on producers as well as consumers. Competition might not be beneficial for consumers, if not accompanied by appropriate transparency, disclosures, grievance redress and accountability practices. Thus it may be reasonable to assume that consumers sometime prefer limited choice in products.

Effectiveness of Regulatory Authorities

One of the issues, which have been improved drastically over the years, is the awareness-level of consumers about the existence of regulatory authorities. However, when it comes to the effectiveness of such agencies in regulatory decision making, the survey revealed that these agencies have not been very effective. Approximately 58 percent of respondents felt that regulators are effective only sometimes in enforcing regulatory orders. The effectiveness of these agencies is essential for fair competition to prevail in the market and for that they need to be independent and autonomous.

By and large, the level of perception and awareness among stakeholders on competition and regulation in India is quite high. Nonetheless, the sample size comprises policymakers, bureaucrats, industrialists, academicians, sectoral experts and other informed individuals, represent an educated class of the society.

But this poses appalling questions in front of decision and policymakers;

- *If this is the perception of the educated class of the country what would be the level of awareness on competition and regulation in India among the working-class people?*
- *Do they really know the true meaning of competition and regulations? If yes, then, are they aware of the existing competition policy in India?*

Nevertheless, these questions remain unanswered at this point of time but augmented a need to gauge the exact level of perception on competition and regulation.

Endnotes

1 ***Stratified random sampling*** is a method of ***sampling*** that involves the division of a population into smaller groups known as strata. In ***stratified random sampling***, or ***stratification***, the strata are formed based on members' shared attributes or characteristics.

2 Representation of samples (size) does not depend much on the population size, which is counter-intuitive to many. Most polling companies use 400 or 1000 people in their samples. The reason for this is that a sample size of 400 gives a confidence interval of +/-5 percent 19 times out of 20 (95 percent), whereas a sample size of 1000 leads to a confidence interval of +/-3 percent 19 times out of 20 (95 percent).

3 http://www.hindustanpetroleum.com/LPGFaqs accessed on October 10, 2017

4 https://www.indiatoday.in/india/story/aadhaar-linking-mandatory-for-mobile-number-bank-accounts-lpg-connection-1079626-2017-10-30 accessed on October 30, 2017

5 https://thewire.in/194086/supreme-court-aadhaar-bank-account-mobile-number/ accessed on November 03, 2017

6 https://www.bcg.com/en-in/publications/2017/marketing-sales-globalization-new-indian-changing-consumer.aspx, accessed on October 10, 2017.

7 https://www.iea.org/publications/freepublications/publication/IndiaEnergyOutlook_WEO2015.pdf, accessed on October 10, 2017.

8 http://www.cci.gov.in/sites/default/files/advocacy_booklet_document/CCI%20Basic%20Introduction_0.pdf, accessed on October 10, 2017

9 https://blogs.economictimes.indiatimes.com/it-doesnt-add-up/making-of-an-umpire-indias-tryst-with-the-competition-commission-of-india/ accessed on October 10, 2017

10 https://scroll.in/article/834519/public-opposition-leaves-loss-making-electricity-distribution-firms-powerless-to-raise-tariffs, accessed on October 10, 2017

CHAPTER 3

Implications of Competition Reforms in Wheat Sector on Consumers and Producers in Bihar and Rajasthan[1]

Introduction

Agriculture has traditionally been identified with basic food related produce. However, over time, several other areas like forestry, horticulture, floriculture, dairy, poultry, etc. have been included in the definition of modern agriculture. As of 2013-14, agriculture and allied sectors accounted for around 14 percent of GDP as compared to 52 percent in 1950-51. Although the contribution of agriculture in India's GDP has shrunk drastically after independence; the total agricultural production has increased manifold.

Several factors are to be blamed for decline of contribution of agriculture to national GDP. These include, distorted incentive structure for farmers, lack of appropriate infrastructure and technology, market infancy, constraints in input supply, and restrictive regulations, among others. In this regard, various policies and reforms were introduced from time to time to address the situation. Salient elements of such reforms have been:

- Policies and programmes geared towards an increased participation of the private sector in various nodes of the agriculture value chain.
- Better articulation of the public sector enterprise in an evolving market.
- Institutionalisation of proper 'checks and balances' to ensure that social objectives of agriculture are also met.

In this background of the agriculture sector reform in India, this chapter attempts to unravel competition concerns in the wheat sector in Bihar and Rajasthan. The selection of wheat as the staple crop was in view of recent lifestyle changes with rising wheat consumption, as compared to rice across large parts of the country. The selection of the two states (both being among the top six states in terms of wheat production) was based on factors such as: diversity in agricultural conditions such as agro-climatic zones; agricultural sector performance; and agricultural policy differences over time.

Table 3.1: Some Salient Features of the Policy Regime Across Agriculture Value Chain	
Agriculture Value Chain	**Salient Points**
Fertiliser	Provision of subsidies has remained a ubiquitous feature of plans and programmes in this sector. The current policy focuses on improving production efficiency to meet the expanding demand while limiting the level of subsidies and improving availability. Government remains a key player in the market.
Seeds	There has been gradual liberalisation of the seed policy regime in the country, with a deliberate attempt to enable the private sector to play a much bigger role. At the state-level, government seed corporations have implemented various programmes to preserve local varieties and ensure that seeds are available easily to farmers.
Marketing	The Government has controlled agricultural marketing through the Essential Commodities Act 1955, and the Agricultural Produce Marketing (Regulation) Acts. A Model Agricultural Produce Marketing (Development & Regulation) Act, 2003 was prescribed by the Central Government to states, which encouraged entry of private players. However, state governments did not follow the Model APMC Act, 2003 in spirit and mere cherry picked certain provisions. This resulted in largely a failed reform. Now the Centre has come out with new model law i.e. Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017 (or the APLM Act), which makes a marked improvement over the model law of 2003.
Warehousing	Warehousing (Development and Regulation) Act 2007 was developed with the intention of engaging private sector in provision of warehouse infrastructure in order to address the challenge of insufficient public infrastructure for storage.

The chapter underscores some of the key competition reforms undertaken in Bihar and Rajasthan and attempts to map the implications of the same on consumers and producers through primary and secondary data.

Overview of Wheat in Rajasthan and Bihar

The size of Rajasthan's economy in terms of Gross State Domestic Product (GSDP) at current prices in 2015-16 is around 1.6 times that of Bihar.[2] During 2015-16, however, Bihar has grown at a faster pace at 7.6 percent as against 6.71 percent of Rajasthan. Contribution of agriculture to the GSDP is around 26 percent in Rajasthan and 25 percent in Bihar in 2015-16.[3]

In 2010-11, India had around 160 million hectares agricultural land holding of which Bihar accounted for 6 million hectare (4 percent) and Rajasthan 21 million hectares (13 percent). Further, the number of landholdings in Rajasthan was considerably higher than in Bihar, reflecting higher land fragmentation and lower holding size in Bihar. Whereas national average size of landholdings was 1.15 hectares, and even higher 3.07 hectares in Rajasthan, the same was only 0.39 hectares in Bihar.

The agriculture economy in Bihar is dominated overwhelmingly by marginal and small farmers – these two categories account for 97 percent of landholding units covering 76 percent of agricultural land. The large farmers in Bihar account for only 1 percent of agricultural land. In contrast, large farmers in Rajasthan account for 6 percent of landholding units covering 33 percent of agricultural land area. Marginal farmers accounts for only 6 percent of agricultural land in the state.

This dominance of marginal/small farmers in Bihar has important ground level implication for policy design. Inputs for production need to be affordable and locally accessible for marginal/small farmers to benefit. Greater access to credit from institutional sources is another major requirement. With low individual production, individual bargaining power in open market will also be low. In addition, it may not be cost effective to transport produce to a far off market, thus, demanding proximity of markets for agricultural produces.

Even though area under cultivation of wheat in Bihar has increased at 0.69 percent per annum (pa), it is lower than the national average of 0.95 percent and Rajasthan average of 1.91 percent. As a result of the lower rate of expansion in Bihar, its share in total area under wheat production in India declined from 8 percent in 1995-96 to 7 percent in 2011-12. In contrast, Rajasthan raised it share from 7 to 10 percent, during this period.

Rajasthan similarly fared significantly better in improving its yield over the period – increasing from 1,464 kg/hectare (ha) in 1980-81 to 3,175 kg/ha in 2011-12 at a CAGR of 2.53 percent, higher than the national average of 2.14 percent. Starting from a similar yield level, Bihar could increase it only to 2,206 kg/ha in 2011-12. Higher (historical) Seed Replacement Rate (SRR), better irrigation facility, better availability of electricity, higher level of mechanisation are some of the contributory factors behind better performance of Rajasthan compared to Bihar. As a joint consequence, wheat production in Bihar increased at a slower pace (2.38 percent pa) than the national average (3.11 percent). In contrast, Rajasthan more than trebled its wheat output from 2,394,000 tonnes in 1980-81 to 9,320,000 tonnes in 2011-12.

Table 3.2: Wheat Production

		1980-81	1990-81	2000-01	2010-11	2011-12
Area (in '000 ha)	Bihar	1755	1965	2068	2104	2170
	Rajasthan	1635	1014	2310	2479	2935
	All India	22279	24167	25731	29069	29902
Production (in '000 tonne)	Bihar	2306	3560	4438	4098	4787
	Rajasthan	2394	4309	5547	7215	9320
	All India	36313	55135	69681	86874	93904
Yield (k/ha)	Bihar	1314	1812	2146	1948	2206
	Rajasthan	1464	2375	2402	2910	3175
	All India	1630	2281	2708	2989	3140

Source: Commission for Agriculture Costs and Prices

Reforms in the Wheat Sector in Bihar and Rajasthan and Implication on Beneficiaries

As agriculture falls in the State list under the Indian Constitution, States have implemented various reforms to boost the sector in their respective states. This section underscores some of the reforms that have had a significant impact (positive/negative) on wheat consumers and producers in Rajasthan and Bihar.

Reforms Undertaken in Bihar

Seeds

In Bihar, various schemes on seed production, like *Beej Gram Yojna, Mukhyamantri Tivra Beej Vistaar Yojna*, etc. have had a significant impact on availability of quality seeds for the farmers. This has increased SRR leading to better productivity for farmers. In addition, these created an enabling business environment, which helped attract private players in the state's seed market.

Before the year 2008, only 6200 quintals of certified/quality seed on subsidy was distributed in Bihar. SRR was as low as 11 percent for wheat. Similarly for paddy it was 12 percent, pulses 5 percent, oilseed 30 percent and maize 50 percent. This poor state of affairs was mainly due to the non-availability of requisite amount of quality seeds with a weak State Seed Corporation and non-participation of state in the central sector scheme for strengthening of seed infrastructure. Private sector presence was also limited to just one seed company.

To improve the condition, a holistic Agricultural Roadmap 2008-12 was prepared encompassing reform initiatives for various nodes of the seed supply chain. A target was set for SRR for wheat/paddy, pulses, oilseed and maize at 35, 20, 55 and 70 percent respectively. Further, to achieve higher seed production and better SRR seed production targets of Bihar *Rajya Beej Nigam* (BRBN) were considerably increased. Concomitant budgetary allocations were also made to ensure additional fund for BRBN to strengthen its capability. Some of the schemes introduced to boost Bihar's seed sector (under the Agriculture Roadmap of 2008) were as:

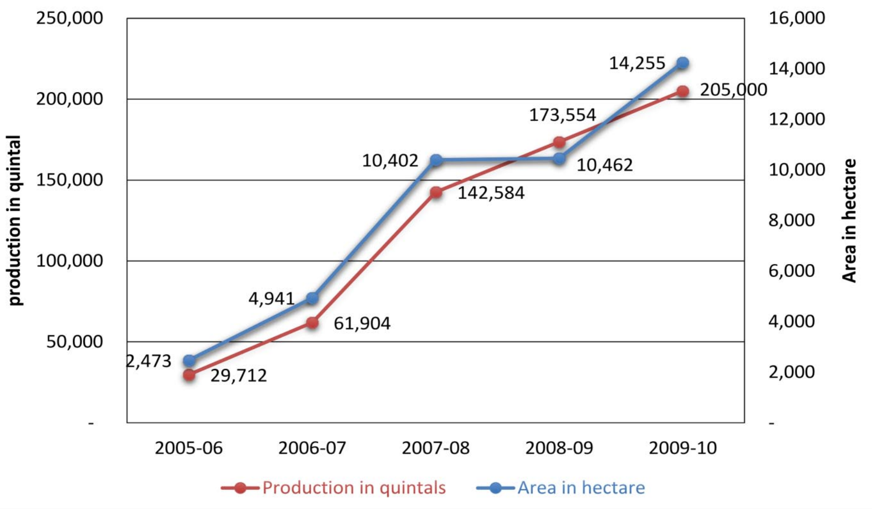
Mukhyamantri Tibra Beej Bistar Yojana: Under this scheme, two farmers were selected by the Block Agricultural Officer from each village for each selected crops, and foundation seed of selected crops were distributed in small packets (20 kg packet for half acre land in case of wheat) at a subsidised rate. One day before the distribution, farmers were given training on seed production technology. A district scientist was also provided for each district to solve farmers' seed related problems. Registration with Seed Certification Agency was voluntary. Under the scheme, foundation seed distribution by 2009-10 reached 26.5 thousand quintal for paddy, wheat, gram and lentil with 0.25 million beneficiaries resulting in quality seed production crossing 0.83 million quintal.

Beej Gram Yojana: For BGY, four villages in each block were selected, and desirous farmers of such selected villages were imparted training at three stages and given foundation seed at half the cost. Seed storage bins of 5 quintal capacity were also provided to farmers on subsidy. 1064 villages had been covered by 2009-10 under wheat starting from a mere 34 villages in 2007-08. In addition, 1024 villages were covered under paddy by 2009-10, almost doubling from 529 villages covered in 2008-09.

Seed Production on Government Farms: Under the changed policy, the seed production was allowed on government farms where the cost of cultivation was borne by the state. Infrastructure facilities like irrigation, land leveller, mechanised harvesting, barb-fencing, 150 storage godowns etc. were strengthened through *Rashtriya Krishi Vikas Yojana* (RKVY). In total, around 3000 hectare of state farm area were brought under seed development, producing around 51,500 quintal of foundation seed, most of which accounted for by paddy (1476 ha, 35000 quintal) and wheat (1120 ha, 15000 quintal).

The reforms under the Bihar Agriculture Roadmap 2008-12 also mandated an enhanced role of private players in boosting seed production and marketing. This was one of the main reasons for increase in private participation in Bihar's seed sector. However, since private seed producers were also given the option to sell to the National Seed Corporation, these players did not invest much in the distribution channels.

Figure 3.1: Seed Production in Bihar



Source: Department of Agriculture, Bihar

Overall, seed production in Bihar increased around seven fold over 2005-06 to 2009-10. From 2008 onwards, the yield (especially in paddy) improved in response to the reforms in this sector. In case of wheat, the yield augmented from ~18-20 quintal/hectare in 2008 to 38-40 quintal/ hectare in 2013. Furthermore, as emerged from the field survey undertaken for this report, 87 percent of the respondents in Saran and Vaishali districts reported that there was an increase in access to quality seeds while 83 percent reported increased reliability of supply and higher purchase. 79 percent of respondents also reported improvement in seed quality. The seeds also became more affordable for 77 percent of farmers.

Marketing

In Bihar, APMC Act was repealed in September 2006 in view of widespread systemic corruption and malpractices. However, in absence of government support in infrastructure development, and to some extent due to marginal/small farmer dominated agricultural scenario, no significant private investment materialised to help in setting up new markets (*mandi*) or in contract farming or direct marketing. The market infrastructure created under the erstwhile regime is still in use under the authority of sub-divisional magistrate, but there is no public control over the trade practices. Notwithstanding some cost gains reported by farmers post abolishment of APMC, they continue to depend on local traders (and/or village assemblers) for sales and remain vulnerable to the price fluctuations.

In the survey,[4] when people were asked about the impact of the abolishment of *mandis* by the government, 86 percent of respondents in Saran district reported that they had benefitted the farmers as it had reduced cost while 13 percent reported that it had no impact. In Vaishali district, 70 percent of the surveyed farmers suggested having benefitted while 30 percent did not. The respondents explained that with the abolishment of the APMC *mandis*, the transaction fee (*mandi* fee) had been removed. This benefitted those farmers, who were able to sell their produce at *mandis*. For other farmers, who were unable to access these *mandis* (as they could not afford to transport their grains) there seem to have been no noticeable impact of the abolishment of the government *mandis*. They continued to rely on the traders/village aggregators who would pick the grain from their farm gate.

There are around 53 markets having basic infrastructure as open/covered platforms, shops, godowns, weighbridge, etc. The repeal of the APMC Act in 2006 freed the market for private participation. Neither there has been any significant public investment in infrastructure post 2006 nor did the sector attract much private investment. As a result, the marketing setup has remained underdeveloped with limited private *mandis* and some proliferation of informal *mandis*.

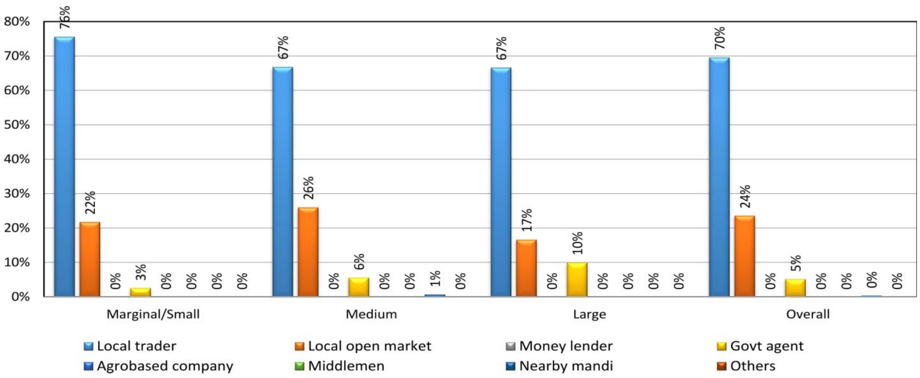
Post 2006, there is also no legal barrier to direct marketing and contract farming. However, with most of the Bihar farmers belonging to the marginal or small category, no significant progress could be made in either of these two areas.

Be that as it may, any policy that enhances farmers' bargaining power to sell the produce at the price they choose to sell in a competitive market is most likely to enhance welfare gains. The primary survey shows that small farmers sell only about 50 percent of their produce and the rest is used for self-consumption. With such low level of marketable surplus, the individual bargaining power in the open market for marginal/small farmers in Bihar thus is quite low.

Majority of farmers surveyed across all categories sold their crop to local traders. Only 10 percent of the large farmers have sold their crop to government agencies, which further reduces to three percent in case of marginal/small farmers. Even in terms of preference (as against actual sales) too more than 90 percent of farmers reported local traders as their preferred buyer and only 65 percent preferred government procurement agencies. Non-availability of local markets within easy reach, delay in payments by government agencies, etc. are commonly stated reasons. The importance of such factors to farmers becomes even more evident if we keep in mind the pre-dominance of marginal/small farmers in Bihar and their low level of marketable produce. It is apparently more economical for these farmers to sell at home to local traders against ready cash.

It also needs to be noted that more than 90 percent of farmers reported that they sell at a price which is generally prevalent in market and only about 10 percent go by government set Minimum Support Price (MSP). Thus, dependence on local traders results in the marginal/small farmers being exposed to the vagaries of price fluctuation, especially during periods when price slumps.

Figure 3.2: To Whom Bihar Farmers Sold Produce



Procurement

Since Rabi Marketing Season 2013-14, the number of procurement agencies has been pruned down from 7 to only 2. One of such agencies is Primary Agriculture Cooperative Societies (PACS) under the aegis of Bihar State Food Corporation (BSFC) as the nodal agency. PACS purchases from the farmers and sells it to BSFC, which, in turn, delivers it to the Food Corporation of India (FCI) – the entity responsible for maintaining the national food grain reserves.

However, on an average only about 30 percent of the farmers surveyed in Vaishali and Saran were of the opinion that market access had increased because of PACS. Varied opinions were observed regarding impact on price realisation across these two districts as well as across categories of farmers. In general, about 80 percent of the small farmers do not perceive any increase in price realisation because of PACS. Moreover, the move has effectively introduced a state government monopoly in procurement of wheat in the state. Lack of cross agency competition has resulted in limited to no choice for farmers in selecting the agencies.

The farmers' experience with PACS also raises a few points. Farmers need to submit land ownership records which are issued by the local authorities (*tehsil* office) and require a lead time of at least a month. This creates additional barriers especially for small farmers and others who have inherited their lands. Complaints about PACS refusing to purchase farmers produce, citing quality related problems were commonly encountered. In addition, PACS as an organisation is politically influenced, and have not yet put in

Figure 3.3: Percentage of Farmers who Experienced Increase in Access because of PACS

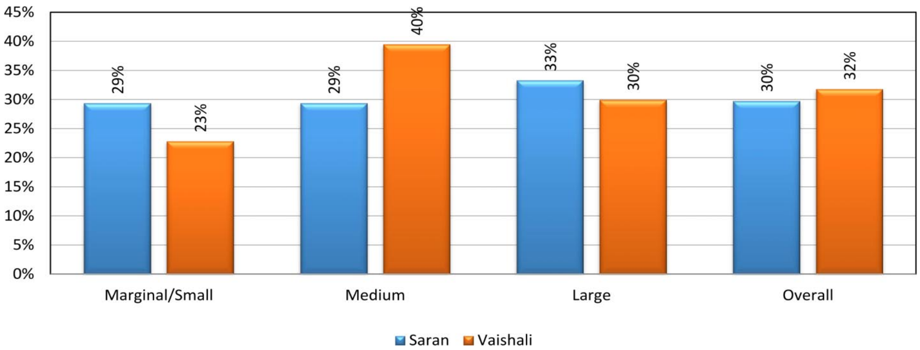
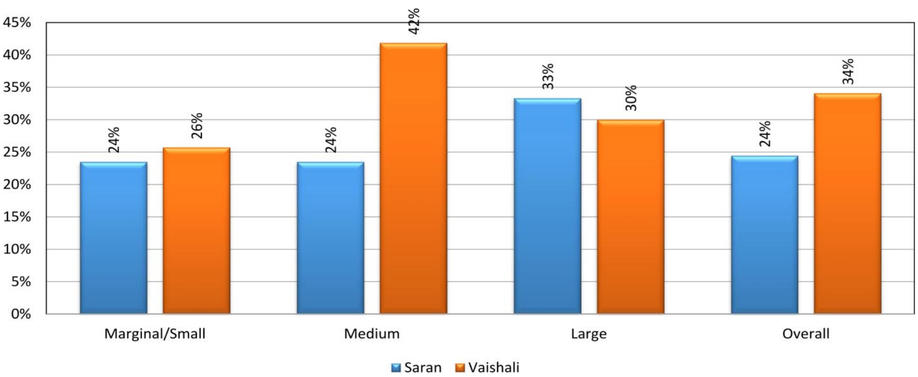


Figure 3.4: Percentage of Farmers who Reported Increase in Price Realisation because of PACS



place any system of performance audit. As a consequence of all these factors, a 'broker' segment has emerged who purchases the produce from the farmers at a discounted price and sells it to PACS. Some observers feel these 'brokers' were delivering a public service for the farmers and it was a *win-win.*

Reforms Undertaken in Rajasthan

Seeds

In contrast to the positive impact of Bihar's focus on seed production, minimal impact was noted in Rajasthan. Rajasthan Seed Plan sets target but fails to bring in reforms covering all the important elements of the seed supply chain.

Rajasthan has been fairly self-sufficient in seed production, especially characterised by presence of large number of private players in the state. As per record with Rajasthan Agriculture Department, 117 out of 149 registered seed producers, 78 out 111 registered seed processing plants and 6,522 out of 15,384 registered seed growers were in the private sector.

Although there are significant number of private seed companies the SRR is not satisfactory. This can be attributed to the implementation failure of the state seed plan.[5] The target SRR for wheat was set at 50 percent by 2011-12 at the planning stage of the seed plan in 2007-08. However, the actual data shows that the state could achieve only 30 percent SRR in wheat by 2011-12, which actually dropped from 33 percent recorded in 2008-09 immediately after the plan implementation.

Table 3.3: SRR – prior year actuals and target set for wheat by the Seed Plan

	SRR (%)						Desirable	Planned SRR (%)			
	02-03	03-04	04-05	05-06	06-07	07-08	SRR (%)	08-09	09-10	10-11	11-12
Wheat	14	12	16	19	19	29	50	35	40	45	50

The failure can be largely attributed to lack of micro level planning to chalk out a concrete ground level implementation strategy for the overall macro level state plan. For example, the plan avows to follow a strategy of incentivising public and private sector to develop appropriate varieties for each agro-climatic zone with focus on suitable varieties for dry land farming. However, apart from a slew of targets for the Rajasthan State Seed Corporation (RSSC), it fails to outline any policy reforms or fiscal/financial incentives for attracting more investment into the sector. Even in case of RSSC, no estimation is provided in the seed plan on the financial and physical requirements for the enhanced target, and the path to adopt to fulfil these.

Marketing

Rajasthan is among the leading states in terms of implementation in many of the reforms as envisaged in the Model APMC Act, 2003. On paper, it has promoted e-trading, made provision for single point levy of market fee, allowed single registration/licence for trade/transaction in more than one market, etc. However, the actual overall progress on the field has been rather slow, especially in case of private markets and contract farming.

Even after the reform initiatives in Rajasthan, currently there are only around 135 regulated markets and 311 market sub-yards under the APMCs.[6] The extent of failure of the reform process can be gauged from the facts that so far only one farmer-consumer market has been given licence in the state; and out of the 10 licences issued for the private market yards, only three such yards are operational. Some of the factors often mentioned by stakeholders during interaction as responsible for low uptake on private initiative are:

- Heavy security deposit for both physical market licence and market functionaries operating in them;
- Land availability for private markets/it's collection centre including change in land-use pattern;
- Minimum distance requirement between existing APMC markets and the proposed private markets;
- Logistical issues, especially connectivity; and
- Large investment with low incentives (20 percent of fees), etc.

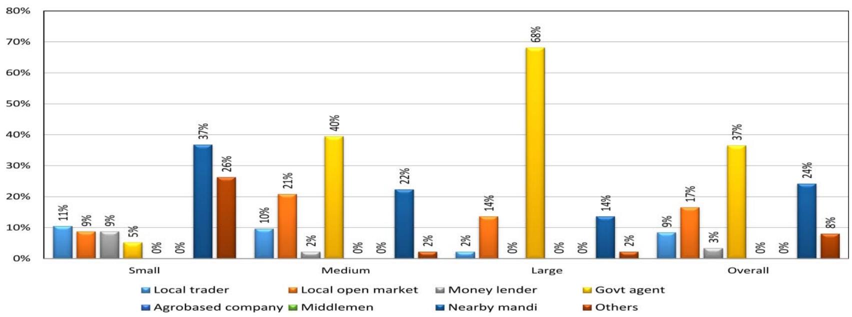
Similarly, even though contract farming is permitted in Rajasthan, none had been registered till 2014-15. The only positive has been the 76 direct marketing licences issued for direct sourcing from farmers by private entrepreneurs. However, actual progress again has been rather slow with a slew of market barriers injected through the fine print:

- The direct purchaser should buy minimum of 2000 MT (soya and wheat) per market yard;
- Fixed deposit receipt for one day's maximum purchase to be deposited security with respective APMC;
- Buying points have to be located outside municipal limits, leading to higher logistics costs due to non-availability of sufficient infrastructural support; and
- Need to obtain documentation clearances for every dispatch from the respective APMC

Another distortionary practice that continues is the requirement of transaction between sellers and buyers in APMC markets through licensed commission agents only (even though commissions are paid by the purchaser). This has created a barrier for entry of new players and allowed the incumbent licence holders a degree of market power.

In Rajasthan, the agriculture sector is dominated by the medium and large farmers. These groups sell almost 3/4th of their produce. In contrast to Bihar, a large number of farmers surveyed (Alwar and Bhilwara districts) sold their harvest to government agencies. Amongst the small farmers, majority have sold the harvest to local traders. It is also important to mention that about 10 percent of the small farmers sold the crop to money lenders. It is imperative that a large proportion of those who reported selling their produce to 'others', must be selling it to either money lenders or some middlemen.

Figure 3.5: To Whom Rajasthan Farmers Sold Produce



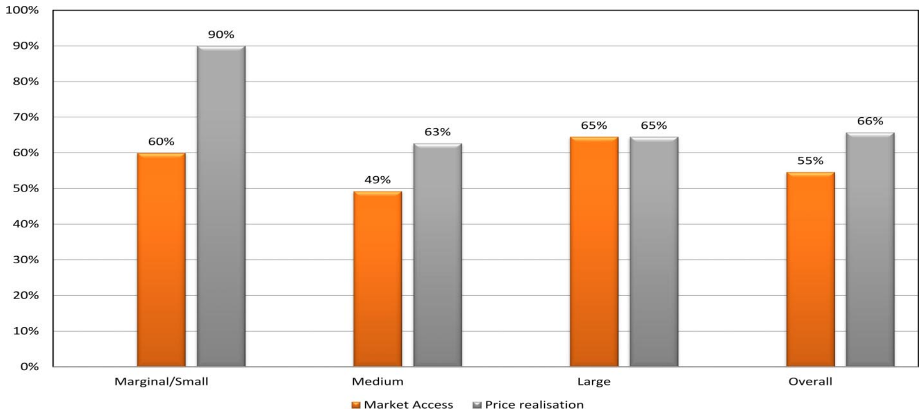
Procurement

In Rajasthan, apart from Central Government institutes like FCI, state entities like Rajasthan State Co-operative Marketing Federation Ltd (RajFED) are active in procurement.

Given procurement is largely through APMC markets in this state, all negative factors affecting the APMC markets such as licencing rules, infrastructural bottlenecks, intermediation cost, lack of market integration, etc. affects farmers interested in selling to the government procurement agencies at MSP. There have been frequent complaints of refusal citing quality issues, delay in payment, etc.

Additionally, procurement takes place at government declared MSP plus any additional incentive or bonus mark-up declared by the states. This declaration of MSP inhibits free market operation in price determination, especially when procurement involves 1/4th to 1/3rd of production. Moreover, though it was originally designed as a floor price to protect farmers' interests in case of a collapse in market prices, actual experience in the recent times show MSP being set above market prices under quite normal conditions and thus proving to be a highly inefficient subsidy. This has also led to selection bias among farmers in favour of crops with assured profitability from sowing MSP covered crops *vis-à-vis* other crops. Plus, declaration of bonus sometimes creates an arbitrage opportunity for traders, especially when it creates a disparity in procurement prices across two neighbouring states.

Figure 3.6: Farmer's Satisfaction with DPS



Recently, from *Kharif* marketing season 2013-14, Rajasthan has implemented Decentralised Procurement System[7] (DPS) for wheat in Alwar district on a pilot basis, which saw enhancement in price realisation by farmers.

In the primary survey, farmers were found to be more satisfied with market access as well as price realisation because of DPS. It is worth noting that the proportion of surveyed farmers expressing satisfaction with price realisation is considerably higher at 90 percent for small and marginal farmers. In terms of payment, only about 30 percent have reported of any improvement in payment, whereas almost 50 percent reported that no change has been observed regarding the same.

Conclusion

From the findings of the study, it is evident that the prevailing policy stance of the government across the wheat supply chain in the two states varies widely. Consequently, the market environment that has been developed is also considerably different. As per the evidence collected and analysed under the study, conclusion and key recommendations are enlisted below:

Seed sector reforms

The success of the seed sector in Bihar was buoyed by effective implementation of the reforms and strengthening of the government institution. Further the channels were made to attract private investments.

As per the research undertaken, it was found that quality seed production increased seven fold. The number of private players also increased significantly. The farmers surveyed also reported increased access, increased reliability of supply and higher purchase, quality improvement and better affordability. Higher seed production and better accessibility also led to an increase in SRR in wheat and consequently in yields. However, despite commendable progress in ushering in private participation in the sector, a few areas such as more intensive ground level initiative for ensuring quality standards of seeds and price monitoring need further attention to keep a check on unscrupulous elements.

The Bihar seed sector reforms reflect a clear example of pro-competitive reforms bringing benefits to producer and consumer (here, farmers) welfare. It is argued that such reforms be advocated and replicated in other states of India where seed sector is dominated by public players and suffer from lack of availability and quality.

Agricultural marketing

With agriculture being a subject of the state legislature under Indian constitution, the APMC reform experience since 2003 have been quite divergent across the states. While Rajasthan adopted the Model APMC 2003 selectively, and introduced legislative provisions for private markets, contract farming and direct marketing; Bihar completely repealed the APMC Act. However, despite these completely diagonal approach of the two states, the marginal impact on private participation and competition have been quite similar – one of failure.

The Rajasthan experience highlights the need for bringing harmony across the multiple policy verticals (both legislative as well as administrative) having an impact on the sector. The so called APMC reform based on the Model APMC Act, 2003, has largely resulted in failure to meet the objectives. Furthermore, the poor response from the private sector in the agriculture marketing system is also due to factors such as: (a) heavy security deposit requirement; (b) problems in land availability/acquisition or changing usage pattern; (c) minimum distance required from existing APMC markets; (d) logistical issues, like assured water, electricity availability and/or road/rail connectivity; and (e) large investment with low incentives (20 percent of fees), etc.

In case of Bihar, even though the market infrastructure created under APMC continues to operate after repeal of the Act, their operations are largely unregulated. Withdrawal of state was also accompanied by decline in public investment in agricultural marketing infrastructure. Even though legislative freedom was available for private entry, the state government failed to develop a holistic attractive investment environment by its neglect of related policy parameters. Associated support initiatives such as gap financing, easier credit availability and lower cost, good connectivity, reducing administrative red tapes, etc. were also marked by their absence.

Factors such as predominance of marginal and small farmers in Bihar, with average landholding size barely a third of national average at 0.39 hectare, also acted as a considerable irritant in popularising direct marketing or contract farming.

Analysis of the divergent experiences of these two states show the limitations of the model Act in ushering private investment, and at the same time brings out the fact that complete abolishment of APMCs as demanded by many may not be the appropriate answer. A harmonised multi-pronged policy approach encompassing land, infrastructure, connectivity, administrative reform, credit, investment, etc. will be required to address this multi-faceted problem.

The above discussion shows inadequate policy and planning in Bihar post-repeal of APMC Act to attract private investments. This also shows failure of the regulatory design of the present APMC laws, including the Model APMC Act, 2003 as far as competition amongst buyers and price realisation by farmers are concerned. A "Competition Analysis of the Model APMC Act, 2003,"[8] done by CUTS International for the Competition Commission of India in 2016-17, vindicates such findings.

Procurement

In Bihar, procurement monopoly is enjoyed by the PACS. They have a grand network of about 8500 and are present at every *panchayat* level throughout the state. However, in spite of the given network, the PACS have been unable to gain momentum in procurement. While big farmers prefer to sell in the market (as market price is higher than the MSP at which the PACS buy), small and marginal farmers prefer to sell to local traders as it does not entail showing any official documents (as required by the PACS). This structure exists in spite of the fact that both local traders as well as the PACS provide payment at the time of sale.

There is a crucial need to revamp the PACS in order to meet the objective of the institution. While the institution is marred by political influence and loose administrative structure, it is critical to note that the organisation also suffers from financial paralysis. While they are mandated to provide payment to farmers at the time of buying, they receive payments only after the produce is forwarded to the BSFC and then the FCI. Once the FCI obtains the produce, it releases the payment for the BSFC and the PACS, which comes with a lag of minimum one month. There are no guidelines or rules or mechanisms to build their capacity in place to strengthen them. Clear guidelines need to be slated for them and financial stability be provided. The PACS structure and best practices in other states be looked at where they are performing well.

The public monopoly-like condition in the procurement node can be broken by opening the sector for private entry. The selection of the agencies may be done on the basis of open bidding, with the one asking for the lowest commission margin being the winner. This shall allow setting up more procurement centres closer to the farmers, thus increasing access and also enabling even the marginal/small farmers to avail the price security net. The wastages can also be reduced by reimbursing the private players based on the amount delivered to the warehouses rather than procured from farmers.

ANNEXURE

Competition Assessment

Model APMC Act, 2003[9]

1. Name of Legislation/Policy

The Model Act: The [State] Agriculture Produce Marketing (Development & Regulation) Act, 2003

Hereinafter it is also referred as "the Model APMC Act, 2003" or simply "Model Act".

2. Current Status of the Legislation/Policy

It is a Model Act and a format recommended to state governments and is not binding on States. Few States have made amendments to their APMC Acts, based (of varying degree) on the Model Act.

As "agriculture" is a "state subject" under the Constitution, the regulation of agriculture produce marketing is governed by state governments. For this purpose, most states have legislations – the Agricultural Produce Marketing Acts (APMC Acts). Although, it is claimed that the objective of such market regulation is "to ensure that farmers are offered fair prices in a transparent manner", the stated objective, in general, is "to develop and regulate agriculture produce market..."

Under such APMC Acts, state governments are empowered to notify the commodities, and designate markets and market areas where the regulated trade takes place. For operating the markets, the Acts provide constitution of Agricultural Produce Market Committees (APMCs) by the respective state government. Generally, the entire state is divided into various market areas to be managed by respective APMCs. Once a particular area is declared a "market area" and falls under the jurisdiction of a Market Committee, *no person or agency is allowed freely to carry on wholesale marketing activities*. This establishes APMCs to dominant position in respective market areas, hence liable to be frowned upon for abuses of dominance.

While coming out with the Model Act of 2003, the Sahini Committee had observed: "Such legally granted monopolies have resulted into:

- Prevention of development in the competitive marketing system;
- No help to farmers in direct marketing and organising retailing;
- Prevention of smooth raw material supply to agro-processing industries; and
- Hurdle to adoption of innovative marketing system and technologies.

An efficient agricultural marketing is essential for the development of the agriculture sector as it provides outlets and incentives for increased production, the marketing system contribute greatly to the commercialisation of subsistence farmers. Task Force on Agricultural Marketing Reforms set up by the Government of India has suggested:

- promotion of new and competitive Agricultural Market in private and cooperative sectors;
- to encourage direct marketing and contract farming programmes;
- facilitate industries and large trading companies to undertake procurement of agricultural commodities directly from the farmer's fields; and
- to establish effective linkages between the farm production and retail chains.

There is a necessity to integrate farm production with national and international markets to enable farmers to undertake market driven production plan and adoption of modern marketing practices. However, if agricultural markets are to be developed in private and cooperative sectors and to be provided a level competitive environment *vis-à-vis* regulated markets, the existing framework of State APMC Acts will have to undergo a change. The State has to facilitate varying models of ownership of markets to accelerate investment in the area and enable private investment in owning, establishing and operating markets. Working of existing Government regulated markets also need to be professionalised by promoting public private partnership in their management. Appropriate legal framework is also required to promote direct marketing and contract farming arrangements as alternative marketing mechanism. Therefore, there is a need to formulate a new model law for agricultural market."[10]

While, in 2003, the Committee has had a futuristic vision re agriculture produce market, the Model Act that it proposed does not seem to be in sync with the vision. The present assessment of the Model Act corroborates this inference.

3. General Competition Assessment

Although this Model APMC Act is for the "development and regulation" of agriculture produce market, more than 90 percent its texts are devoted to the structure, constitution, conduct of business, powers and duties etc. of various bodies set up under the Act, and a very small portion is devoted on the marketing aspect of agriculture produce. The Model Act recommends a vast bureaucracy for market regulation, which is neither required nor desirable, and hindrance to "professionalisation of the regulated market". Since, the Act allows *monopoly/dominance* of the APMC in a market area such an unprofessional market management structure can engender *collusive behaviour* as well as *abuse of dominance*.

"Definitions" under any piece of legislation contribute significantly in determining its scope. Some key definitions of the Model Act, singularly and cumulatively, *can act as entry barriers, can cause appreciable adverse effect on competition, and can limit free and fair market processes*. For instance, the effect of definition can discourage farmers (or a body of farmers like producers' company or Farmer Producer Organisations) to set up their processing mechanism/units of their farm produce and also simultaneously taking up business/trading related with agriculture produce – entry barriers for potential new entrants. Similarly, the definition of "agriculture produce" – the subject matter of regulation – is wide enough to include roughly all the items to be sold and purchased in the monopolistic APMC markets.

The provisions related to the constitution of the Market Committees (APMCs) under the Model Act seem to allow the marketing of agriculture produce to be "*driven by vested interests under government protection*". The structure does not seem to "*effectively prevent anti-competitive conducts*", such as cartels amongst buyers. Further, the regulatory structure given by the Model Act is such that there is bound to be interference by local politicians, obstructing free flow of trade and commerce. To add to it, the Model Act allows *interference of State Government* in the regulatory mechanism.

As a pro-competition improvement over the pre-2003 APMC Acts of states, the Model Act allows setting up of private markets. However, the scope for the same remains too narrow as well as putting up various unnecessary quantitative restrictions for obtaining licene (for instance, Rajasthan APMC Rules requires, *inter alia*, five hectare of land for setting up of a private market yard). Some states also proposes license fee and minimum cost for setting up of private markets. Not allowing or restrictively allowing setting up of private markets and farmer-consumer markets is the most *trade restrictive and anti-competitive* part of the Model Act.

According to the Model Act, even where private markets would be allowed, such markets have to be governed under the APMC Act. This will clearly prevent private players to invest in markets, hence reduced competitive rivalry in a given market area. Above all, there is a *conflict of interest* that arises on account of the powers conferred upon APMC and State Marketing Board, under the Act, relating to licensing and operation of private players. *This conflict of interest can have an adverse effect on competition.*

In light of the above, it can be inferred that the Model Act of 2003 does not seem relevant for the present day market dynamics, including e-commerce, and hence not good enough to be advocated as a starting point for agricultural market reform. It fails to recognise the principle that "competition amongst the buyers of agricultural produce would benefit the farmers (as sellers) most". On the one hand, it tends to discourage farmers who would like to hold/control a bigger portion of global agriculture value chain, including reaching consumers directly, and hence increase their profitability. On the other hand, it provides a regulatory structure which tends to inhibit competition amongst buyers.

The Sahini Committee that came out with the Model Act in September 2003, hoped that it will enable: (1) nationwide integration of agricultural markets, (2) facilitate emergence of competitive agriculture markets in private and cooperative sectors, (3) create environment conducive to massive investments in marketing related infrastructure, and (4) lead to modernisation and strengthening of existing markets. It is to be noted that the Model Act would not be able to deliver on these fronts, unless there is liberalised market structure. Private investment would not come unless they are allowed to operate freely in the market.

Since 2003, the architect of Indian market and marketing system has changed significantly. Innovation in marketing is making big changes to economy, for instance e-commerce, app-based marketing etc. The Model Act clearly does not reflect to allow such innovation in agriculture produce marketing. Therefore, the Model Act should cease to be a model for states to follow. It is appreciated that NITI Aayog is thinking to come out with a new Model APMC Act.1[11] It is hoped that the new draft would remove all restrictions with respect to sale-purchase of agriculture produce so that "anybody is free to sell anybody at any place".

In sum, the very soul of APMC Acts, including the Model APMC Act, is anti-competitive in nature, and hence requires change of orientation, with stated objective of "engendering competition amongst the buyers of agriculture produce". This would be in the best interest of farmers, if it is the aim of agriculture market regulatory regime.

4. Does the Legislation / Policy have any provision (including the manner of its implementation) which could cause appreciable adverse effect on competition in the relevant market in India?

It would not be wrong to say that the Model Act is, in essence, an anticompetitive legislation and the pro-competitive provisions are mere exceptions to the Act. (The need, however, is just the opposite – a pro-competitive law in design, yet permitting certain restrictive clauses to achieve targeted objectives, if required). The *modus operandi* presented by the legislation is to establish monopoly to the APMC in a declared market area. The licensed traders, operating within the market area, are supposed to bid (pro-competitive) for the agriculture produce on arrival in the market yard. However, the bidding may have been responsible for better price realisation in earlier times, today in this Information & Communication Technology era, the price realisation does not happen due to bidding. Now the price is 'known' and 'published' prior to bidding process. In sum, the whole arrangement does not present a system whereby price realisation happens through a competitive process.

A question also arise – should the 'relevant geographical market' as understood in the competition law parlance be confined to the given 'market area' as determined under APMC Act?

If the answer is 'yes', then the scope of anti-competitiveness of the impugned legislation becomes narrow, and would largely revolve around the bidding process of price realisation. But if the answer to the question is 'no', then the scope of anti-competitiveness of the legislation becomes very wide and that would also include the very determination of 'market area' as against the spirit of competition law. This competition analysis is based on the latter proposition i.e. the whole of India is as relevant geographical market.

While clause-by-clause explanation is given below in tabular form, the identified provisions that pose competition concerns are:

- S.2. Definitions (Agriculture produce; agriculturist; marketing; processor; traders etc.)
- S.14 Constitution of Market Committee
- S.26. Powers & duties of APMCs (register or refuse registration of market functionaries; to promote PPP for extension activities etc.)
- S.27. Publication and circulation of arrival with rates
- S.38. Procedure & form of Contract Farming
- S.39 Regulation of marketing of notified agricultural produce
- S.40 Sale of notified agriculture produce in markets
- S.41 Terms & procedure of buying and selling
- S.42. Power to levy market fees
- S.44 Registration of Functionaries
- S.45, 46 and 47 Establishment of private yards; consumer-farmer market; grant/renewal of license for these

5. Does the Legislation / Policy have any provision (including the manner of its implementation) which could humble any of the salient features of a competitive market, namely, free entry and free exit, number of participants, perfect symmetry of information, and ability and motivation of participants to compete?

Yes there are provisions that humble salient features of a competitive market. These provisions are:

- S.2. Definitions (Agriculture produce; agriculturist; marketing; processor; traders etc.)
- S.26. Powers and duties of APMCs (register or refuse registration of market functionaries; to promote PPP for extension activities etc.)
- S.27. Publication and circulation of arrival with rates
- S.39 Regulation of marketing of notified agricultural produce
- S.41 Terms and procedure of buying and selling
- S.42. Power to levy market fees
- S.44 Registration of Functionaries

6. Does the Legislation / Policy have any provision (including the manner of its implementation) which could restrict the freedom of producers, suppliers or consumers in the market or their choices?

Yes there are provisions in the Model Act which tends to restrict freedom of Sellers (agriculturists/producers), Buyers (traders) and ultimate consumers. Following are such provisions:

- S.2. Definitions (retail sale)
- S.14 Constitution of Market Committee
- S.40 Sale of notified agriculture produce in markets
- S.41 Terms & procedure of buying and selling
- S.44 Registration of Functionaries
- S.46 consumer-farmer market

7. Does the Legislation / Policy have any provision (including the manner of its implementation) which could be in disharmony with the objectives of the Competition Act, 2002, namely, prevention of practices having adverse effect on competition, promotion and sustenance of competition in markets, protection of the interests of consumers, and freedom of trade carried on by other participants in markets, in India?

Yes. Please see elaborations as given below in tabular form.

8. Comments on each of the anti-competitive (anti-competitive according to the assessor) provisions in the Legislation / Policy in the following format (Please have a separate table as under for each such anti-competitive provision):[12]

(a) Clause 1/ Section 2/ Model Act

Provisions in this Clause	S.2(1) "Agricultural Produce" means all produce and commodities, whether processed or unprocessed, of agriculture, horticulture, apiculture, sericulture, livestock and products of livestock, fleeces (raw wool) and skins of animals, forest produce etc. as are specified in the schedule or declared by the Government by notification from time to time and also includes a mixture of two or more than two such products
What are the likely effects of this Clause on competition?	• **Cause appreciable adverse effect on competition in the relevant market in India** • **Creates entry barrier** • **Limits Free and fair market processes** We have seen that the Model Act itself in essence an anti-competitive legislation mandated to create dominance in the market. Seen under this light, the definition is too wide and open, resulting in very wide range of agriculture products coming under the trade restrictive regime.

(b) Clause 2/ Section 2

Provisions in this Clause	S.2(2) "Agriculturist" means a person who is a resident of the notified area of the market and who is engaged in production of agricultural produce by himself or by hired labour or otherwise, but does not include any market functionary
What are the likely effects of this Clause on competition?	• **Creates entry barrier** The definition excludes any market functionary. That means a farmer cannot take up grading/processing/ trading etc. along with farming (see definition of 'marketing' below). Once farmer chose to grade or process its product, s/he would cease to be an "agriculturist" and hence disqualify for being member of the Market Committee. Thus it dis-incentivises potential entrants into relevant market. It may be noted here that restriction on multiple role applies only to farmers and not on other market functionaries.

(c) Clause (5) and (31)/ Section 2

Provisions in this Clause	S.2(5) "Business" means purchase-sale, processing, value addition, storage, transportation and connected activities of agricultural produce S.2(31) "Marketing" means all activities involved in the flow of Agricultural produce from the production points commencing from the stage of harvest till these reach the ultimate consumers viz. grading, processing, storage, transport, channels of distribution and all other functions involved in the process.
What are the likely effects of this Clause on competition?	• **Cause adverse effect on competition** • **creates entry barrier** The definitions include anything from the stage of harvest till it reaches the ultimate consumers. Activities like grading, processing, storage, transport, channel of distribution and all other functions involved in the process, comes within the ambit of "market". This again widens the scope of the restrictive regulatory regime, adversely affecting competition. It also creates hurdles on new entrants, particularly that from farming community.

(d) Clause 36 / Section 2

Provisions in this Clause	S.2(36) "Processing" means any one or more of a series of treatments relating to powdering, crushing, decorticating, de-husking, parboiling, polishing, ginning, pressing, curing or any other manual, mechanical, chemical or physical treatment to which raw agricultural produce or its product is subjected to.
What are the likely effects of this Clause on competition?	• **Creates Entry Barriers** The definition of "processing" includes very basic activities related with farm produce, which can be done at the farm level to enhance farmers' income. Read with the definition of "agriculturist" a farmer cannot take up processing and qualify for a member of market committee at the same time. Thus dis-incentivising potential players to enter into market (as buyers).

(e) Clause 2 / Section 40

Provisions in this Clause	S.2(40) "Retail Sale" in relation to a notified agricultural produce means a sale not exceeding such quantity as the Market Committee may by bye-laws, determine to be a retail sale in respect thereof
What are the likely effects of this Clause on competition?	• **Restricts the freedom of players in the market** The definition caps the quantity to be sold by retailers. Such cap is also there if a producer (farmer) wants to directly sell to consumers.

(f) Clause 46 / Section 2

Provisions in this Clause	Provisions in this ClauseS.2(46) “Trader” means a person who in his normal course of business buys or sells any notified agricultural produce, and includes a person engaged in processing of agricultural produce, but does not include an agriculturist
What are the likely effects of this Clause on competition?	• **Creates Entry Barriers** The definition expressly exclude farmer, but include a processor. Thus it creates entry barrier for farmers to simultaneously take up “trade” to enhance their profit. Such restriction on multiple roles applies only to farmers and not on other market functionaries.

(g) Clause1/Section14

Provisions in this Clause	Section14 (1) Save as provided in section 13, every Market Committee shall consist of the following members, namely Ten members shall be agriculturists possessing such qualifications as may be prescribed to be elected by the Managing Committee members of the PACS functioning in the market area and by the *Sarpanch* and members of the village *panchayats* of which 7 shall be elected from amongst the committee members of Primary Agricultural Societies Provided further out of 10 representatives of agriculturist at least one shall belong to each of the following sections of the society. 1. Scheduled Caste/Tribe (one member) 2. Other Backward Class (one member) Woman (one member) Provided further that no agriculturist will be eligible to be elected as representative of agriculturists unless he has sold agricultural produce in the market in preceding two successive years.

	Provided further if the committee is established first time, then no agriculturist will qualify to be elected as a representative of agriculturist unless he has sold agricultural produce in the market during the last six months. (ii)Two members shall be licensed traders elected amongst them in the manner prescribed; One member shall be a representative of the Co-operative Marketing Society, which has the headquarters within market area. Provided further if there is more than one such society, the representative will be elected as prescribed. (iv) Two members shall be the Government nominees out of which one member shall be the representative of the State Department of Agricultural/Cooperation/Agricultural Marketing. One representative of the Hamal & Weighmen to be nominated by the registered union of the Hamals & Weighmen. One representative of Local authority (Chairman of N*agarpalika, Mahanagarpalika, Panchayat Samiti* or *Zilla Parishad* as the case may be
What are the likely effects of this Clause on competition?	• **Driven by vested interests, promoted by the government** • **Does not effectively prevent anti-competitive conduct** • **Indirectly limits choice to sellers (farmers)** S.14 (and also 14A) provides for the constitution of the marketing committee, which is highly bureaucratic and liable to political interference. For instance, it says that 10 "agriculturists" would have to be elected by the PACS member of the Committee and by *Sarpanch* and members of the Village *Panchayat*. Further, it advocates as members of committee – an officer of the Agriculture Dept. of State, one representative of the Hamal & Weighmen, one representative of the *Gram Panchayat* or *Janpad Panchayat* or *Zilla Panchayat.*

	All these make the regulatory body highly bureaucratic, political and unprofessional. This leads to local politicians (on the name of farmers) making their way into regulatory system, and they collude with local traders who funds them during election period. This nexus, is not only anti-competitive (facilitating formation of cartels amongst the buyers of farm products) but also anti-farmer. In addition, although the Model Act allows agriculturist to sell their produce through private markets, however, such transactions could disqualify him from becoming a member of marketing committee. Thus it may indirectly limit the choice to agriculturists and lures him to sell his product through AMPC market. The Model Act discourages farmers to undertake multiple roles in agriculture value chain, while such restrictions are not there on other entities.

(h) Sub clause (iii), Clause (a), Subsection (2), Section 26

Provisions in this Clause	S.26(2)(a)(iii) Market Committee may... register or refuse registration to market functionaries and renew, suspend or cancel such registration, supervise the conduct of the market functionaries and enforce conditions of Registration S.26(2)(a)... Market Committee may... Set up and promote public-private partnership in management of the Agricultural Markets. Promote public private partnership for carrying out extension activities in its area viz., collection, maintenance and dissemination of information in respect of production, sale storage, processing, prices and movement of notified agricultural produce.

What are the likely effects of this Clause on competition?	• **Conflict of interest (competitor having decisive say in licensing/registration)** • **Limits Free and fair market processes** • **Promote monopolistic behaviour/ abuse of dominance** APMC is itself a regulator and a major player in the market – empowered not only to create a market but also to grant a license for private market. APMC also issues licenses to traders and commission agents for operation in the market. In addition, APMC also acts as a Registrar for licensed agents. Thus APMCs, appears to have power to decide who farmer can sell to; who can participate in the market; where the markets are to be established. It may also be possible that allowing public private partnerships (PPPs) in management and development of infrastructure like cold storage, pre-cooling facilities etc. may turn these PPP entities into a monopolist, which may result into imposition of unfair conditions on an agriculturist.

(i) Section 27

Provisions in this Clause	S.27 To publish and circulate from time to time the data of arrivals and rates of agricultural produces standard wise brought into the market area for sale as prescribed
What are the likely effects of this Clause on competition?	• **May promote cartelisation** Complete transparency is not always good especially if market is conducive for cartelisation. Therefore, publishing and circulating data on arrivals and rates of agricultural produces brought into the market may lead to an environment conducive for collusion. In other words, this would affect the competitive bidding process for price realisation.

(j) Section 38

Provisions in this Clause	S.38. Contract Farming agreements shall be governed in the manner laid down hereinafter (1) Contract farming Sponsor shall register himself with the Market Committee or with a prescribed officer in such a manner as may be prescribed (2) The Contract Farming Sponsor shall get the contract farming agreement recorded with the officer prescribed in this behalf. The contract farming agreement shall be in such form containing such particulars and terms and conditions as may be prescribed. (3) Disputes arising out of contract farming agreement may be referred to an authority prescribed in this behalf for settlement. The prescribed authority shall resolve the dispute in a summary manner within thirty days after giving the parties a reasonable opportunity of being heard, in the manner prescribed. (4) The party aggrieved by the decision of the prescribed authority under sub-section (3) may prefer an appeal to an Appellant Authority within thirty days from the date of decision. The Appellant Authority shall dispose off the appeal within thirty days after giving the parties a reasonable opportunity of being heard and the decision of the Appellant Authority shall be final. (5) The decision by the authority under sub section (3) and decision in appeal under sub section (4) shall have force of the decree of the civil court and shall be enforceable as such and decretal amount shall be recovered as arrears of land revenue. (6) Disputes relating to and arising out of contract farming agreement shall not be called in question in any court of law than otherwise provided herein above.

What are the likely effects of this Clause on competition?	• **Conflict of interest that may have adverse effect on competition** The sponsor of contract farming has to register with the APMC and also dispute arising with respect to the contract may be settled by the APMC (*see S.26(1)(vii)*). This conflict of interest may result in discouragement of an additional channel for farmers to sell their produce, reducing the level of competition among the buyers of agriculture produce. It has been recommended by the Committee of States Ministers in-charge of Agricultural Marketing (2013) that APMC should not be the authority for registration/dispute settlement under contract farming.

(k) Subsection (1) Section 39

Provisions in this Clause	S.39(1) No person shall, except in accordance with the provisions of this Act and the Rules and Bye-laws made there under; (i) use any place in the market area for the marketing of notified agricultural produce : or (ii) operate in the market area as a market functionary
What are the likely effects of this Clause on competition?	• **Creates Entry Barriers** • **Limits free and fair market process** This provision allows any marketing of agriculture produce in a market area only in accordance with the APMC Act/ Rules/Bye laws. That means no one can operate in the market area as a market functionary without having a license to operate. Particularly when licensors are competitors themselves. This provision is trade restrictive and anti-competitive in nature. This may also contribute in formation of cartels by buyers in the market area, with the help of market committees. There are few exceptions to this rule but they are very narrow.

(l) Section 40

Provisions in this Clause	S.40(1) All notified agricultural produce shall ordinarily be sold in the market yards/ sub market yards or in the private yards of the licence holder, subject to the provisions of sub-section (2). Provided that the notified agricultural produce may be sold at other places also to a licence holder especially permitted in this behalf under Section 45 of this Act Provided further that it will not be necessary to bring agricultural produce covered under contract farming to the market yard/sub market yard/private yard and it may be directly sold to contract farming sponsor from farmers' fields. (2) Such notified agricultural produce as may be brought by the licenced/registered traders from outside the market area or in the market area in the course of commercial transaction may be brought or sold anywhere in the market area. The price of the notified agricultural produce, brought for sale into the market yard, shall be settled by tender bid or open auction or any other transparent system and no deduction shall be made from the agreed price on any account whatsoever from the seller. Provided that the price of notified agricultural produce in the private yards shall be settled in the manner prescribed
What are the likely effects of this Clause on competition?	• **Restricts Freedom of players (sellers) in the market** • **Causes appreciable adverse effect on competition in the relevant market** • **Promotes monopolies and their abuses** According to this provision, baring few exceptions, the Model Act disallows sale of agriculture produce outside the market yard.

(m) Subsection 1/Section 41

Provisions in this Clause	S.41(1) Except in the commercial transaction between two traders, any other person who buys notified agricultural produce in the market area, shall execute an agreement in triplicate in such form, as may be prescribed in favour of the seller. One copy of the agreement shall be kept by the buyer, one copy shall be supplied to the seller and the remaining copy shall be kept in the record of Market Committee
What are the likely effects of this Clause on competition?	• **Promotes cartelisation between first buyers and traders resulting in skewed price** • **Does not effectively prevent anti-competitive agreements** • **Driven by vested interests promoted by the government** This provision requires execution of agreement between first seller and buyer, but it does not apply between two traders. This is not only discriminatory but by not recording further trade of the goods it promotes collusion to fix the price (at which the goods would be bought at the first instance). For instance, if a farmer sells his produce (at say ₹10/Kg) the same would have to be recorded and the market fees would have to be paid based on this sale. However, the buyer is then free to sell to other buyers at any amount (say ₹20/Kg) as the same need not be recorded and also for the same the fees would not be paid. This presents an opaque system. Thus promoting formation of a syndicate (cartel) influencing price of the goods.

(n) Subsection 3/Section 41

Provisions in this Clause	S.41(3) No wholesale transaction of notified agricultural produce shall be entered directly by licenced/registered traders with producers of such produce except in the market yard/sub market yard/private yard or in such place in accordance with the provisions in the bye-laws.
What are the likely effects of this Clause on competition?	• **Restrict freedom of players in the market** • **Limits free and fair market process** • **Promotes monopolies and their abuses** • **Limits choice of agriculturists and consumers**

	Prevents any wholesale transaction of notified agricultural produce between traders and farmers outside market yards, except that under contract farming. Producers cannot sell their products directly to consumers. This limits choice of the agriculturists as well as urban consumers, and may impede competition in the market.

(o) Subsection 1 / Section 42

Provisions in this Clause	S.42 (1) Every Market Committee shall levy market fee- (i)on the sale or purchase of notified agricultural produce , whether brought from within the State or from outside the State, into the market area: and (ii)on the notified agricultural produce whether brought from within the State or from outside the State, into the market area for processing: at such rates as may be fixed by the State Government from time to time subject to minimum rate of fifty paise and a maximum of two rupees for every one hundred rupees of the price in the manner prescribed
What are the likely effects of this Clause on competition?	• **Limits free and fair market process** The Economic Survey 2014-15 notes that the levy of high market fee, which is not directly related to the services being provided by the APMC, acts as a major impediment to creating national common market in agriculture commodities and this provision should be removed to pave the way for creating greater competition. Further, S.42 read with S.53 and S.54, of the Model APMC Act leads to the requirement that the buyers having to pay APMC charges even when the produce is sold in a market set up by private individuals, where no facility provided by the APMC is used. This amounts to a restriction on the freedom of private players.

(p) Section 44

Provisions in this Clause	S.44(1) Every person who, in respect of notified agricultural produce, desires to operate in the market area as trader, commission agent, Weighmen, Hammal, surveyor, warehouseman, contract farming buyer, owner or occupier of processing factory or such other market functionary, shall apply to the Market Committee for registration or renewal of registration in such manner and within such period as may be prescribed. Provided further that any person who desires to trade or transact in any notified agricultural produce in more than one market areas, shall have to get his registration, for respective function, with the authority prescribed by the State Government/Director/Managing Director. (2) Every such application shall be accompanied with such fee as the State Govt./Director/ Managing Director may prescribe
What are the likely effects of this Clause on competition?	• **May create entry barrier** • **Reduction of competitive rivalry** • **Increased possibility of cartelisation** • **Conflict of interest resulting in adverse effect on competition** Licensing system decreases the number of market players in the market system. In addition, some states have set very high license fees and minimum cost criteria. For instance, Andhra Pradesh has set a license fee of ₹50 thousand and ₹10crore as minimum cost for setting up the private market. Such criteria may create entry barriers for new entrants, which may lead to the risk of creation of market power and reduce competitive rivalry. In addition, when number of players decline, the possibility of collusion among the remaining players increase. Then there is the case of conflict of interest that arises on account of the powers conferred upon APMC and the State Agricultural Marketing Board under the APMC Act relating to the licensing and operation of private players. Granting of licenses to competing players may not be in the general interest of APMCs. This dual power of APMC/Board could

	have an impact on number of players permitted in the market and their incentive to compete. Therefore, this conflict of interest can have an adverse effect on competition. The report of the Committee of State Ministers in-charge of Agricultural Marketing (2013) recommended that private markets should be treated at par with the existing APMCs and there should be simplified procedure for registration/licensing. The requirement of security and bank guarantee should be reasonable to facilitate entrepreneur for development of need based market infrastructure in the country. The minimum parameters for setting up of private market may be prescribed. From S.44 to S.47, the Act requires that licenses to be obtained prior to the setting up of a private market/yard. The states have provided criteria to be fulfilled for setting up the same. In this regard, a licensing mechanism may be replaced by registration mechanism. Under such mechanism, any person may be free to set up a private market/yard provided certain standardised conditions are met, and can obtain registration for the same. The same would expedite the process of setting up non-APMC markets/yards and provide certainly to the process.

(q) Sections 45, 46 & 47

Provisions in this Clause	S.45 The Director/Managing Director/Prescribed authority may grant licence to purchase agricultural produce by establishing private yard or direct from agriculturist, in one or more market area for (a)process of the notified agricultural produce; (b)trade of notified agricultural produce of particular specification (c)export of notified agricultural produce; (d)grading, packing and transaction in other way by value addition of notified agricultural produce S.46(1) Consumer/Farmer market may be established by developing infrastructure as prescribed, by any person

	in any market area. At such place, producer of agricultural produce himself may, as prescribed, sell his produce directly to the consumer Provided that the consumer may not purchase more than such quantity of a commodity at a time in the consumer market as may be prescribed (4) Licence for establishment of consumer/farmer market shall be granted by the State Govt./Director/Managing Director S.47(1) Any person who, under Section 45 desires to purchase notified agricultural produce direct from the agriculturists or wishes to establish a private yard or under section 46 desires to establish consumer/farmer market in one or more than one market area, shall apply to the Director/Managing Director for grant or renewal of license, as the case may be, in the manner and for the period, as may be prescribed by the State Government. (2) All the licences granted/renewed under this section shall be subject to provisions of this Act, rules or bye-laws made there under.
What are the likely effects of this Clause on competition?	• **Pro-competition, but very limited** • **Restrict freedom of players in the market** Sections 45 and 46 are the two windows through which private markets yards can be established, of which the second one is farmer/consumer market – where producers can directly sell to consumers. These are the only provision that tends to bring in some competition to APMC markets. However, eligibility criteria to obtain license for private market yards or to purchase directly from farmers is too narrow. Similarly, in farmer/consumer market there is a restriction on the quantity that can be purchased in such markets. But the Act and bye-laws made therein would apply to such private markets. That means the private markets yards do not have freedom to manage themselves.

	The lack of clarity as to how APMC issues/grants the licenses may lead to imperfect competition in agriculture markets or mandis because of the unequal bargaining power between market participants on account of the limited licences issues to a handful of wholesalers and traders who dominate the business. Furthermore, S.46(4) does not provide for any time period for license to farmer-consumer markets, which may lead to potential anti-competitive effects. There must be uniformity of the licences prescribed. In fact, best option is that there should be a registration system based on standardised conditions, instead of licensing system.

(r) Section 100

Provisions in this Clause	S.101(1) The State Government may give directions to the Board and Market Committees (2) The Board and the Market Committees shall be bound to comply with directions issued by the State Government under sub-section (1)
What are the likely effects of this Clause on competition?	● **Limits institutional independence** Government can interfere in the regulation of agriculture produce market. And as such the Model Act also applies to private market yards, the government can also interfere in such market.

Are the above provisions absolutely necessary in the present form to achieve the objectives of legislation/bill? (Please elaborate)

No. In fact, the discussed provisions are hindrance to the achievement of the objectives of the Act. The stated objectives of the Model Act are:

- improved regulation in marketing of agricultural produce;
- development of efficient marketing system;
- promotion of agri-processing and agricultural export;
- the establishment and proper administration of markets for agricultural produce; and
- to put in place an effective infrastructure for marketing of agricultural produce.

The analysis above shows that the improvement over earlier regulation that the Model Act suggest is very less, i.e. it opens a very narrow window for private players and that too also be regulated under the Act. Thus there is hardly any real improvement. Although the vision is to attract private investment in developing market infrastructure, the provisions are such that it is not likely to attract such investment. Similarly, for agri-processing the regime curtails freedom of the processor to sell their processed product, because the definition of "agriculture produce" include processed product as well. In addition, the structure of administration of markets is highly unprofessional and liable to political interference.

The Task Force, that had drafted the Model Act, thought to achieve following if state governments adhere to the same: (1) nationwide integration of agricultural markets, (2) emergence of competitive agriculture markets in private and cooperative sectors, (3) creating environment conducive to massive investments in marketing related infrastructure, and (4) modernization and strengthening of existing markets. However, the Task Force failed to suggest right provisions and states may not like to improve on their own due to vested interest with government support.

Please suggest modification required in the legislation/bill in the interest of competition:

Since 2003, the economic architect of Indian market and marketing system has changed significantly. Innovation in marketing is making big changes to economy. For instance e-commerce and app-based marketing etc. (e.g. Alibaba, Uber etc.) has given rise to marketing models that may not have been visualised in 2003. The Model Act clearly does not reflect to allow such innovation in agriculture produce marketing. It would be better if State governments, instead of amending APMC Act, should think to either repeal it with a "suitable transition arrangement". Or it if chose to amend the Act, it should be done in the way that the Act would remove all restrictions with respect to sale-purchase of agriculture produce vis-à-vis the AMPC operated market. The amended law should leave APMC operated market as mere one of the players amongst many. Let the regulated markets compete with emerging (non-APMC regulated) private markets. But the law should be such that anybody should be free to sell to anybody at any place.

Will the above modification, if incorporated, come in the way of achieving the objectives of the legislation/bill?

No. In fact, it would facilitate the objective for which the Model Act was drafted.

Is there any countervailing factor that could possibly justify any anti-competitive element(s) in the legislation/bill?

No. All the time justification has been given that the APMC Act is to protect the interest of farmers. However, it fails to include the principle that "competition amongst buyers" is in the best interest of farmers, as far as price realisation by them is concerned.

Endnotes

1 This Chapter has been culled out from the India Diagnostic Country Report of the CREW project, available at: http://www.cuts-ccier.org/crew/pdf/Diagnostic_Country_Report-India.pdf

The Report was drafted under CUTS Project, Competition Reforms in Key Markets for Enhancing Social and Economic Welfare in Developing Countries (CREW), funded by DFID (UK) and GIZ (Germany). The objective of the project was to gather evidence in staple food and bus transport sectors across Philippines, India, Ghana and Zambia, and develop an empirical tool kit to link competition reforms to consumer and producer welfare. In India, wheat sector was studied in Rajasthan and Bihar and bus transport in Gujarat and Madhya Pradesh

2 As per Economic Surveys of Rajasthan and Bihar for 2016-17, the GSDP at Current Prices of respective states were 6.72 and 4.14 Lakh Crore.

3 *Ibid*

4 Survey conducted under the CREW project.

5 http://www.krishi.rajasthan.gov.in/

6 Agriculture Marketing in Rajasthan; Knowledge Paper Series; Govt. of Rajasthan, FICCI and KPMG, 2016

7 Under DPS, food grains is procured and distributed by the State Governments themselves. Under this scheme, the designated States procure, store and issue foodgrains under Targeted PDS and other welfare schemes of the Government of India.

8 Please see the **Annexure**.

9 This exercise was done for the Competition Commission of India in 2016. It may be noted that a new Model Act has come out in 2017, which is called as "Model Act: the Agriculture Produce and Livestock Marketing (Promotion and Facilitation) Act, 2017", which can be found at: http://agricoop.nic.in/sites/default/files/APLM_ACT_2017_1.pdf. Although there are some good improvements made in the Model Act of 2017, some of the competition concerns raised in the present assessment still remain. CUTS's comments on the penultimate version of the Model Act of 2017 can be accessed at: http://www.cuts-ccier.org/pdf/Advocacy-Submission_of_Comments_on_the_Draft_Model_APMC_Act-2016.pdf

10 Salient Features of the Model Act on Agricultural Marketing; http://agmarknet.nic.in/amrscheme/modelact.htm accessed on 24th June 2016.

11 A new Model Act has been issued by the Central Government. Please see 8 above.

12 Please attach model, estimate, data, table, or graph, if any, in support of the assessment.

CHAPTER 4

GM Cotton Seeds:
Emerging Jurisprudence *vis-à-vis* Competition, Price Control and Patent Licencing

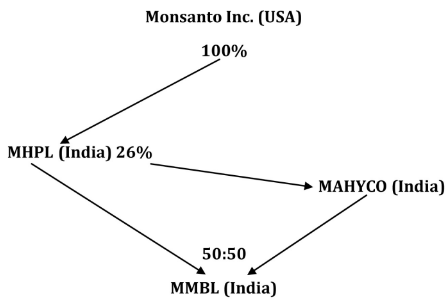
Introduction

The first (and so far the only) genetically modified (GM) crop that has been approved for commercial release in India is Bt Cotton. The approval was given to Monsanto's BG-I[1] cotton technology for commercial release in 2002 and to BG-II in 2006. While Monsanto never applied for patent in India for BG-I, its BG-II was granted patent[2] in India in March, 2009.

'Monsanto Inc. is a major global player in agricultural products, including developer and licencor of GM traits and has a 100 percent subsidiary in India in form of Monsanto Holdings Private Limited (MHPL). Maharashtra Hybrid Seeds Company (MAHYCO) is an Indian company, engaged in R&D, production, processing and marketing of seeds. MHPL holds 26 percent stake in MAHYCO. Mahyco Monsanto Biotech (India) Limited (**MMBL**), a 50:50 joint venture formed between MHPL and MAHYCO, is engaged in sub-licencing of the patented Bt cotton technology of Monsanto Inc. in India.'[3]

Many Indian seed companies (around 50) have entered into sub-licencee agreements with MMBL for procuring its Bt cotton technology in consideration of an upfront one time non–refundable fee (₹5mn) and recurring fee called as 'Trait Value'. The 'Trait Value' is the estimated value for the trait of insect resistance conferred by the Bt gene technology and is to be paid to MMBL on the basis of MRP of 450 gm seed packet in advance for each crop season.

Figure 4.1: The Monsanto Group



This 'fixation or determination of GM trait value and its licencing' has been the trigger for various interventions by Central and state governments and central point of almost all (mostly on-going) disputes between Monsanto and its licencees. Because of these disputes several important issues – scientific, environmental, regulatory, socio-economic, political-economic – emerged or re-emerged.

This Chapter, however, has limited scope. It contains factual illustrations on three recent developments, viz. dispute before the CCI alleging *inter alia* abuse of dominance by the Monsanto group; notification of Cotton Seeds Price (Control) Order, 2015 empowering Central Government to fix price for Bt Cotton seeds, including the trait value; and issuance of Draft Licencing and Formats for GM Technology Guidelines, 2016 by the Central Government.

The Chapter analyses and examines the contentious issues arising out of the above-said developments, viz. does the CCI have jurisdiction on the matters related with patent technology and its licencing; can and should government intervene into regulation of licencing agreement of a proprietary technology using Essential Commodities Act, 1955 (ECA); and should gene patents be licenced on Fair, Reasonable and Non-Discriminatory (FRAND) terms in seed sector.

Recent Developments

Competition Enforcement

The fixation of trait value had been a matter of dispute in the erstwhile competition authority the Monopolies and Restrictive Trade Practices Commission (MRTPC), which had observed in an interim order in May 2006, that "*There is a basic difference between royalty and trait value …and are not synonymous… In any case the lumpsum payment of ₹50 lakhs may be considered as royalty for the same, but the future payments on sale cannot be termed as royalty*".[5]

Later when the MRTPC was dissolved, the matter was transferred to the Competition Appellate Tribunal (COMPAT) as per the new Competition Act. The COMPAT disposed off the matter in December 2009 viewing the fact that the parties to the dispute had reached an agreement and a new price (₹750/pack) had been fixed for Bt Cotton seeds. However, it was categorically stated by COMPAT that "*…if there may be future modifications in the prices the same may give rise to further cause of action".*[6]

In November 2015, the Central Government made a reference[7] to CCI alleging certain anti-competitive practices on the part of MMBL. In December 2015, three private seed companies (Informants), whose licences were terminated by MMBL, also moved to CCI raising allegations of anti-competitive practices by MMBL. Later few more private seed companies joined as informants.

Box 4.1: Allegations against MMBL and its Defence before CCI

The Central Government's allegations against MMBL are:

- Abuse of dominant position by charging unreasonably high trait fees for Bt cotton seeds
- Creating a monopoly through restrictive (licencing) agreements for unjust enrichment by charging high trait value from its licencees and ultimately from farmers
- Its sub-licencing agreements with the Indian seed manufacturing companies are anti-competitive

The private seed companies' allegations are:

- The sub-licence agreements between MMBL and the seed companies are one-sided, arbitrary and onerous as well as it is restrictive if sub-licences want to deal with new technology provider
- Linkage of the trait value to the Maximum Retail Price (MRP) of seed packets is without any economic justification and as such is unfair
- MMBL has not entered into any sub-licence with MAHYCO and MHPL, hence they are not subject to unfair conditions. This amounts to discriminatory conduct on part of MMBL.

MMBL, on the other hand, contended that these allegations are emerging from contractual dispute between the parties and has no competition issue involved. MMBL justified the trait value by stating that they are entitled to reward for innovation and claimed that the trait value charged from Indian seed companies is lowest in the world. On restrictiveness, MMBL submitted that the sub-licencees are only required to intimate it regarding proposed negotiations with any of the sub-licencor's competitor and the same is not abusive or unreasonable. To counter the allegation regarding discriminatory treatment and leveraging of its dominant position, MMBL contended that the market share of MAHYCO and MHPL in the cotton seed market has reduced from 13 percent to 7 percent since 2013.

Broadly, there were two issues before the CCI to decide for the purpose of initiating a thorough investigation:

- Whether the conducts of MMBL amounts to 'abuse of dominance'[8] within the meaning of the Competition Act?
- Whether, sub-licence agreements between the Licencees and MMBL are 'anti-competitive agreements'[9] within the meaning of the Competition Act?

After detailed deliberations the CCI came to conclusion that the "provision of Bt cotton technology in India" is the relevant market for the purpose of analysis. It also figured out that there also exist entry barriers in the form of rigorous regulations and requirement of huge investment in its production. Does MMBL enjoy a dominant position? The CCI found that there were few other companies offering single gene Bt Cotton technology. However, for the two gene Bt cotton technology (BGII), MMBL is the only player. In addition, out of 1128 Bt Cotton hybrids approved by the Genetic Engineering Approval Committee (GEAC) (till May 2012), 986 were having Bt technology sub-licenced by MMBL. The CCI also found that the MMBL's Bt cotton technology was used in more than 99 percent of area under Bt cotton cultivation. Therefore, for CCI the dominant position of MMBL in the relevant market is apparent.

Is such alleged dominance by MMBL being *abused*? The sub-licence agreements contain certain terms and conditions that appeared to the CCI as being abusive, stringent and restrictive as well as unfair. For instance, the termination of a licence would have the effect of denial of market access to the seed manufacturers, given their dependence on MMBL for Bt cotton technology. These conditions also amount to restriction of development of alternate Bt cotton technologies.

Box 4.2: Restrictive Conditions in the Licencing Agreement

The sub-licences between MMBL and seed companies have been alleged to contain the following abusive and restrictive terms & conditions:

- Licence requires the sub-licencee to intimate MMBL within 30 days from date of undertaking development of hybrid cotton based on a trait obtained from a competitor of MMBL, failing which may trigger termination of the licence with immediate effect
- The consequences of such termination require the sub-licencee to immediately cease selling the GM cotton seed produced under the agreement and immediately destroy all such seeds
- The sub-licencee shall immediately destroy all parent lines or other cotton germplasm which has been modified to contain the Monsanto's technology
- MMBL is empowered to terminate the sub-licence agreement with immediate effect, if at any time, any laws in the territory restrict the sub licence fees (trait value) payable by the sub-licencee

According to the CCI, the termination of licence, while the matter was still *sub-judice,* and invoking stringent termination conditions, *prima facie* points towards MMBL using its dominance in the upstream market to protect its presence in the downstream market through its group entities. MMBL also could not provide evidence to get rid of the allegations of discriminatory conduct favouring its groups companies. As any discrimination has the potential to distort the level playing field in the downstream Bt cotton seeds market, CCI felt the need for further examination.

As regards the allegations of 'anti-competitive agreements', the CCI observed that the notification requirements coupled with the stringent termination conditions in the sub-licence agreement entered into between MMBL and the aggrieved seed manufacturers were in the nature of refusal to deal and exclusive supply agreements within the meaning of S.3(4)(b) and 3(4)(d) of the Competition Act.

To the CCI, the termination conditions were found to be excessively harsh and did not seem to be reasonable as may be necessary for protecting any of the intellectual property rights (IPR), as envisaged under S.3(5) of the Act. Such agreements discourage and serve as a major deterrent for the sub licencee from exploring dealing with competitors. The agreements thus, have the effect of foreclosing competition in the upstream Bt technology market which is characterised by high entry barriers.

The CCI came to the conclusion that there exists a *prima facie* case of contravention of the provisions of S.3(4) and S.4 of the Act by the Monsanto Group and consequently directed the Director General to conduct an investigation into the whole matter. As of now, the DG is yet to complete the investigation.

One Member[10] of the CCI, however, did not agree with the conclusion reached by the majority. Even if MMBL holds a dominant position *vis-à-vis* BG-II, there is no *prima facie* case for abuse of such dominance. The dissenting note says, "…it is not a violation of any provision of the Act, though it may have competition concerns. The remedy lies elsewhere. The decision of the Central Government to fix trait fee and prescribe terms of licencing under the Essential Commodities Act, 1955 could be one."[11]

In the meantime, MMBL moved to the Delhi High Court[12] asking it to stop the CCI from investigating. MMBL's main contention is that the CCI has no jurisdiction in respect of any matter related to IPRs, including rights pertaining to licencing of patents, which falls within exclusive jurisdiction of the patent authority and civil courts as provided under the Patents Act, 1970. The Court[13] refused to stay the investigations but directed CCI not to pass any final order. The matter in the High Court is still *sub judice*.

However, in another case (Ericsson case; discussed below) with similar issues, the Delhi HC has ruled that CCI does have jurisdiction.

Cotton Seeds Price (Control) Order, 2015

The Cotton Seeds Price (Control) Order, 2015 (CSPCO) was issued by the Ministry of Agriculture and Farmers Welfare (MoAFW), India on December 07, 2015 in exercise of the powers conferred by Section 3 of the Essential Commodities Act, 1955 (ECA). ECA is "an Act to provide, in the interest of the general public, for the control of the production, supply and distribution of, and trade and commerce, in certain commodities". As per S.2(a)(ix) of ESA, "cotton seed" forms an 'essential commodity'.

According to the S.3 of ECA, "if the Central Government is of opinion that it is necessary or expedient so to do for maintaining or increasing supplies of essential commodity or for securing their equitable distribution and availability at fair prices, …, it may, by order, provide for regulating or prohibiting the production, supply and distribution thereof and trade and commerce therein". Accordingly the CSPCO has been issued "to provide for an effective system for fixation of sale price for cotton seeds to ensure their availability to the farmers at fair, reasonable and affordable prices".

Box 4.3: Important Features of CSPCO

The CSPCO was issued on farmers demand and it was necessitated because of fixation of sale price by multiple authorities that resulted in different prices in different states. This Order is for uniform regulation across India of the sale price of cotton seeds with the existing and future GM technologies.

The Controller under the Seed (Control) Order 1983 shall be the competent authority under CSPCO as well and shall have the power to regulate the sale price of cotton seed. The Controller shall advise the Government on the following:

- Regulation of sale of cotton seeds at notified minimum support price (MSP)
- Prescription of licencing guidelines and format for all the GM Technology Licencing Agreements
- Any other matter referred to him for advice by the Government.

The CSPCO empowers the Government to notify MSP of cotton seeds from time to time. In determining the MSP the Government would have to take into consideration

- seed value
- licence fee (trait value)
- trade margins
- other taxes.

Contd...

The Government, while fixing the MSP, shall also fix and regulate the seed value and licence fee including royalty or trait value. For the purpose of fixing MSP, the Government may constitute a Committee, which shall have recommendatory power.

The fixed MSP would be notified on or before March 31 of every year applicable for the next financial year. "MSP fixation along with fixation of its components" shall be binding on all stakeholders including the Licencor and the Licencee, notwithstanding anything contained in any contract or instrument to the contrary. And importantly, the Government may also prescribe, by notification, a format for Licence Agreements.

The CSPCO further states that "any person who contravenes any of the provisions of this Order or fails to carry out any direction or requisition made thereunder, shall be punishable under Section 7 of the ECA. This section prescribes imprisonment or fine or both.

After adhering to the recommendations of a nine-member Committee for the purpose of fixing MSP of Bt cotton seeds, in March 2016, the Government notified the MSP of Bt cotton seeds. The MSP of Bt Cotton seed (packets of 450gms) for financial year 2016-17 for the whole of India was fixed for BG-II at ₹800, which included a cap of ₹49 on Trait Value. It remained the same for 2017-18.

Furthermore, invoking the powers conferred by the CSPCO, the M/o AC&FW issued a Notification on May 18, 2016 containing "Licencing and Formats for GM Technology Agreement Guidelines", which was subsequently revoked and was published for comments. These guidelines are discussed below in details.

Meanwhile, within days of issuance of the CSPCO, MMBL filed a writ petition in Delhi HC challenging *inter alia* the provisions empowering the government to determine royalty fee/trait value, as illegal and unconstitutional. MMBL submitted that the Government is unfairly regulating and expropriating its IPRs and freedom to negotiate and contract the terms of its licencing agreements with its sub-licencees. While the petition is still *sub judice*, the Court did not grant any stay.

Subsequently, the Association of Biotechnology Led Enterprises Agriculture Group (ABLE-AG), of which MMBL is a member, also filed a writ petition in Karnataka High Court, reportedly on same grounds as those raised by MMBL in Delhi HC. The Karnataka HC first granted a stay vide its March 21, order, but in May, 2016 it revoked its stay order. The matter is pending in both the high courts.

Licencing and Formats for GM Technology Agreement Guidelines

Invoking the powers conferred by the CSPCO, the M/o A&FW issued a Notification on May 18, 2016 containing "Licensing and Formats for GM Technology Agreement Guidelines, 2016".[14] But due to opposition and viewing its wide implications, the notification was rescinded on May 24, 2016, and had been put as draft for comments. So far there has been no development on this.

The central philosophy, encompassing the issuance of the Guidelines & Formats, is that the protection and management IP of a transgenic plant variety *per se* is governed by the Protection of Plant Varieties and Farmers' Rights (PPVFR) Act and not the Patents Act, even though biotechnology inventions are patentable.

Box 4.4: Relevant Features of the Draft GM Licencing Guidelines and Format

The central philosophy, encompassing the issuance of the Guidelines & Formats, can be read into the following paragraphs from the (draft) notification:

"…Section 3 of the Patents Act, 1970 excludes a method of agriculture or horticulture and plants and animals in whole or any part thereof other than microorganisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals from the inventions…

…even though biotechnology inventions are patentable, once the GM Traits developed through biotechnology are transferred into a variety ("transgenic variety"), the transgenic variety *per se* cannot be patented; the seeds carrying such trait also cannot be patented and hence, the plant varieties including transgenic varieties carrying the GM Traits can be protected only under the PPVFR, 2001…

…the transgenic varieties become the intellectual property of the breeder or company who has developed it…

…based on the existing IPRs regime for biotechnology, plants and varieties in the seed industry, it is felt necessary to prescribe the licencing guidelines so that all seed companies have access to the GM Traits without any restraint and at the same time biotech trait development is adequately rewarded under the FRAND mechanism…"

Contd...

With respect to fixation of trait value, the guidelines states taking into account the following additional factors:

- year of patenting and commercialisation of the trait in India
- efficacy of trait and gradual reduction in trait value from the year of commercial use in India

Post-notification of the guidelines, the maximum trait value may be up to 10 percent of MSP of GM Cotton seed (as fixed by the Government) for the initial period of five years from commercialisation. From sixth year the trait value shall taper down by 10 percent of initial trait value every year. The Guidelines further states: "as the GM Traits are expected to have a limited period of efficacy, any GM Trait which loses its efficacy as reported by States and verified by the Indian Council of Agricultural Research (ICAR) shall not be eligible for any trait value whatsoever. Presence of the trait in the seed after the loss of efficacy shall not be a reason for claiming any trait value merely on the basis of patent for the technology which is used to develop the trait."

If new GM Traits commercialised after the publication of these Guidelines, the mutually agreed upfront fee will be subject to maximum ceiling not exceeding ₹2.5mn payable in two equal annual instalments.

In addition, the guidelines also provide certain clarifications/principles to be part of any GM licencing agreement. For instance:

- The Agreement shall be based on principles of equity and FRAND terms
- The GM Trait transfer will be on non-exclusive basis covering entire India
- The GM Technology used for developing the GM Trait shall be the property of Licencor, but the commercial exploitation rights and IPRs under PPVFR Act of transgenic cotton varieties developed by Licencee under this agreement shall rest with Licencee
- Although Licencee cannot transfer the GM Trait under the Agreement to any party without prior approval of the Licencor, the Licencee may licence the transgenic variety developed by them under the agreement, having IPRs under the PPVFR Act, to any other company
- The Licencor shall transfer GM Trait to the licencee within 15 days of receipt of first instalment of upfront fee
- The Licencor shall not put any restrictive condition in the Agreement restraining licencee to get similar or other GM Traits or any other technology from other technology developers/licencor
- The Licencor shall also permit the Licencee to stack any other appropriate GM Trait from any other Licencor or trait developer as and when required so as to provide better agronomic value to the farmers

The GM Licence Guidelines requires that the licencor cannot refuse the grant of licence to obtain approved GM Trait by any eligible seed company. That means the access to GM trait shall not become a barrier to entry into market. If the licencor does not award such licence within 30 days of a request, the Licencee is deemed to have obtained the licence for the GM Trait as per FRAND mechanism and the licencor shall abide the Guidelines.

Examining Contentious Issues

From the above descriptions at least three key contentious issues arise:

- Does the CCI have jurisdiction on the matters related with patent technology and its licencing?
- Can and should government intervene into regulation of licencing agreement of a proprietary technology using ECA, and consequently fix trait value as well as issue licencing guidelines?
- Should gene patents be licenced on FRAND terms in seed sector?

CCI's Jurisdiction

The Patents Act bestows rights on a patent holder to prevent third parties from making, using, offering for sale, selling or importing the products using the said patent without its consent. The Act also presents a framework for exercise of such rights and remedies in cases of abuse of the patent rights. Therefore, it is generally contended that such matters pertaining to patents and be dealt under the Patents Act and not under the Competition Act.

The Delhi High Court considering precisely the same issue related with the jurisdiction of the CCI in the case *Telefonaktiebolaget LM Ericsson vs. Competition Commission of India & Another*[15] held that CCI has the jurisdiction to entertain cases related to 'abuse of dominance' and 'anti-competitive agreements' even when the product concerned is patented. The following paragraphs summarise the logic and reasoning given by the Court.

The Section 62 of the Competition Act states that "the provisions of this Act shall be in addition to, and not in derogation of, the provisions of any other law for the time being in force". Also S.60 of the Act says, "the provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any other law for the time being in force". Therefore, mere plain reading of these two provisions, it is evident that the intention of the Parliament in enacting the Competition Act was not to curtail or whittle down the full scope of any other law, as the Act would be "in addition to, and not in derogation of" any other Act.

The Court also observed that the remedies as provided under Section 27 of the Competition Act for abuse of dominant position are materially different from the remedy as available under Section 84 (Compulsory Licence) of the Patents Act. It is also apparent that the remedies under the two enactments are not mutually exclusive; in other words grant of one is not destructive of the other. Thus, it may be open for a prospective licencee to approach the Controller of Patents for grant of compulsory licence in certain cases. The same is not inconsistent with the CCI passing an appropriate order under Section 27 of the Competition Act.

Furthermore, the provisions of Sections 21 and 21A of the Competition Act indicate that the intention of the Parliament was not to abrogate any other law but to ensure that even in cases where CCI or other statutory authorities contemplate passing orders, which may be inconsistent with other statutes, the opinion of the concerned authority is taken into account while passing the such orders. These provisions clearly indicate the Competition Act co-exists with other regulatory statues and can be harmoniously construed in tandem with those statues and as far as possible, statutory orders can be passed which are consistent with the concerned statutory enactments including the Competition Act.

The Court also observed that the operative width of the two enactments is different. Whereas the Patents Act provides specific remedy to the 'person' seeking relief, the orders passed by CCI are in 'rem' (i.e. against or about a 'thing'). While the doors are open for the parties to initiate proceedings related with a patented product under the Patents Act, the jurisdiction of the CCI cannot be curtailed and hence any proceeding initiated on such product under the Competition Act are maintainable.

Unless until, contrary view is given by the Supreme Court, this may be taken as settled.

Government Intervention under ECA

Although ECA does not expressly provide for regulation of trait value, it gives wide powers to regulate or prohibit any class of commercial or financial transactions relating to foodstuffs or cotton textiles in public interest. The Indian Patents Act also does not supersede or eclipse the provisions of ECA *vis-à-vis* patented products. Thus, as per the rules of interpretations, both the enactments should be read together unless there is an express provision to the contrary.

The Karnataka High Court while revoking its earlier stay order (discussed above), had observed: "it is *prima facie* seen that the source of power to fix the maximum sale price including trait value is available and such step is taken to see that the essential commodity is made available at a fair price to farmers… to continue the interim order would not be in public interest… it is the government's duty to ensure production and supply of cotton seeds at a fair price and the interim order was hampering this".[16]

On the process of price fixation, the Court further observed that "it cannot be stated as arbitrary fixation at this stage since the documents produced on behalf of the government indicates that a committee was constituted to consider the price fixation and after providing opportunity to all the concerned parties, the price has been fixed, which has been notified".[17]

Why Intervene?

It may be noted that before governments began to intervene in controlling MSP of cotton seeds, trait value/licence fee used to constitute around 67 percent of the retail price,[18] making it evident that higher licence fees was leading to higher seed prices. In 2006, Indian farmers were paying about ₹1600 to ₹1700 for 450 gram of Bt cotton seed, of which ₹1250 was going to MMBL as trait value.[19]

Table 4.1: Snap Shot of Price Control Initiatives by Various State Governments

Price Control Initiatives	Concerned State	Current Status
Executive Order fixing the price at ₹650 and ₹750	Malaya Pradesh	High Court (HC) quashed the order (2008)
Ordinance issued notifying fixed price for Bt cotton (BG-₹650 and BG II ₹750)	Maharashtra	The Ordinance lapsed and was re-issued on May 09, 2009. Challenged in HC, decision awaited.
Ordinance issued notifying fixed price for Bt cotton (BG-₹650 and BG II ₹750)	Gujarat	The Ordinance was replaced with an Act. Challenged in HC, decision awaited.
Ordinance issued notifying fixed price for Bt cotton (BG-₹650 and BG It ₹750)	Andhra Pradesh	The Ordinance was replaced with an Act. Challenged in HC, decision awaited.

Source: RIS Discussion Paper #168[20]

Even the noted agriculture scientist, Dr MS Swaminathan has advocated for price control, saying "the government should have authority to use price controls in certain situations, but not to usurp the role of the market".[21] He further warns: "High seed prices and trait fees will come in the way of social inclusion on technological access – and social inclusion is fundamental to growth of the sector".[22]

Post Intervention Scenario

There have been backlashes on the issuance of CSPCO. Monsanto warned by saying: "It is difficult...to justify bringing new technologies into India in an environment where such arbitrary and innovation-stifling government interventions make it impossible to recoup research and development investments...and where sanctity of contracts is absent".[23]

Similarly, Ashok Gulati has stated: "…This one will hit India's credibility in protecting IPR and, no wonder, most global seed companies feel hesitant in bringing their latest technologies to India precisely for this reason. Our public research is pitiable. Look at the entire ICAR budget for the country, which was around ₹4840cr (US$0.8bn) in 2014-15. But Monsanto alone spent US$1.7bn in R&D in 2014."[24]

Would government move really hit India's credibility in protecting IPRs, and consequently discourage investment and transfer of technology? In this regard, it must be noted that under IP policy 'agriculture' and 'health' have been looked upon differently since long, not only in India but in many other countries. These formed one of the most contentious items during Uruguay Round of trade negotiations and the trend continues in any other international negotiations.

Contrary to what Monsanto Inc. has observed, Boeing in its submission to the United States Trade Representative (USTR) has said: "the Boeing Company conducted a detailed review and determined that India maintains adequate Intellectual Property Rights legal framework for the company's aerospace and defence products… Boeing continues to have a positive experience with Indian customers, partners, and suppliers on IPR protection…[25] Indian IPR laws are comparable to IPR regulations in developed countries as India is signatory to all major conventions and treaties on this subject".[26]

Similarly, Honeywell International is on record saying: "India's IPR framework was one of the key enablers in the establishment of Honeywell's engineering and technology presence."[27] This established to some extent that there are certain industry where patent protection is more important, for instance, pharmaceuticals and chemicals, in comparison to say heavy machineries or electrical equipment where non-patent factors may be more important.

Therefore, it cannot be said with conviction that India's IP regime is not conducive to attract R&D investments in the country. It does have differentiated approach for seed and pharmaceutical sectors, but the same is akin to the policy space provided under international agreements. More so, the Central Government has shown much restraint in intervening into matters of patented technology and has a National IPR Policy to facilitate investment in innovation.

Conducive Policies

Since 1988, when the seed industry was liberalised through New Policy on Seed Development, there has been tremendous growth of private (both domestic and foreign) seed companies.[28] By 2010 more than 80 percent of turnover in seed business came from private seed companies. About 90 percent of new varieties that has been registered under PPVFR Act are hybrids developed by private seed companies.[29]

Similarly, the National Seed Policy, 2002, recognises the importance of GM technology, when it says: "Biotechnology will be a key factor in agricultural development in the coming decades. Genetic engineering/ modification techniques hold enormous promise in developing crop varieties with a higher level of tolerance to biotic and abiotic stresses. A conducive atmosphere for application of frontier sciences in varietal development and for enhanced investments in research and development is a pressing requirement. At the same time, concerns relating to possible harm to human and animal health and bio-safety, as well as interests of farmers, must be addressed".

The point is that the policy environment for foreign investment in Indian seed sector, in general, and GM seed sector, in particular, is quite conducive. And few government regulations to safeguard national/farmers' interests do not create such a bad situation for investment and technology transfer. The Indian seed market remains more liberalised than that of China, which severely restricts FDI and trading in certain types of seeds.[30]

CSPCO – A Middle Path

Farmer groups have been the main demanders for price regulation of Bt cotton seed and so far various state governments have been fulfilling this demand. But when due to fixed MSP (without capped trait fee), the domestic seed companies (sub-licencee companies) found their profits getting significantly squeezed, they began to put pressure on respective state governments. Subsequently, Telangana/Andhra Pradesh began intervening into fixing 'royalty/trait value'. This triggered similar actions by cotton growing states, which in turn led to number of court cases.

While one set of court cases were initiated challenging the said move of the state governments, another set of court cases were initiate between few sub-licencees and MMBL, whether to pay according to government fixed trait value or as prescribed by the licence contract between the two parties. Most of these cases are still pending. The Central Government, in the meantime, decided to issue CSPCO, assuming itself the responsibility of price control of Bt cotton seeds, including fixing trait value/fee.

It may also be pertinent to note here that most stakeholders (farmers groups, state governments, etc.) have been demanding inclusion of price control under the new Seed Bill (introduced twice in the Parliament, 2004 and 2010).[31] Major part of the Bill, if it becomes an Act, would be implemented by state governments, where chances of adhering to populist measures are much higher. Almost all the private seed companies (domestic and foreign) are opposed to this approach of price control – directly under an Act, implemented by state governments.[32]

If at all a price control regime is needed, the seed companies would rather prefer a softer law approach under an administrative Order, implemented by Central Government. Under this approach it is easier to amend and withdraw notifications than that under the former approach.

Therefore, the present move by the Central Government in fixing MSP of Bt cotton seeds, including royalty/trait value, vide an administrative order, tends to bring more certainty, transparency and homogeneity as far as policy environment is concerned. The emerging price control pattern in GM cotton looks like: patent holder (say Monsanto) would negotiate "royalty/ trait fee" for transferring its patented technology (say BG-III) with GOI. Once that is done, GOI would notify the MSP of such GM cotton seed for whole of India.

This emerging pattern seems to present a middle path, from regulation and competition perspective. On the one extreme is a situation where a patent holder using its dominance in the market negotiates with domestic seed companies individually, having weak bargaining power, resulting in unreasonable MRP. On the other extreme is a situation where state governments in their populist zeal intervening to control the price, including royalty fee, and reducing it to such lower level that neither patent holders nor (sub)licencees are happy.

Gene Patents and its Licencing

Patent on life forms had been a subject matter of contentious debate since the Uruguay Round of trade talks, mainly because of its effect on pharmaceutical (health) and seed (agriculture) sectors. After intense negotiations, the text in the TRIPs Agreement, that finally emerged in form of Article 27(3)(b), excluded plants and animals from patentable subject matter.

The TRIPs Agreement gave choice to Member States to exclude from patentability: (i) plants and animals, and (ii) essentially biological processes for the production of plants and animals. But it required Members to provide patent protection for: (i) microorganisms, and (ii) non-biological and microbiological processes for the production of plants and animals. However, the Agreement provided for review of the Article 27(3)(b), which is still pending and the issue can re-emerge any time in future.

Using the flexibility, the Indian Patents Act excluded from patentability: (1) discovery of any living thing or non-living substance occurring in nature,[33] and (2) plants and animals in whole or any part thereof other than micro-organisms but including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals.[34]

Evolving Interpretations

The patents related to genes can be contested on at least two grounds. First, does the isolation of gene amount to a 'discovery'; and second, whether genes are 'parts of plant or animal'. More or less, such contentions are found in most jurisdictions, including that of developed countries. For instance, in the case of the Association for Molecular Pathology v. Myriad Genetics Inc. (2013), the Supreme Court of the US ruled that isolated DNA is not patentable subject matter under US law, and that such isolated nucleotide sequences are barred by the 'product of nature' exclusion to patentability.

The US Supreme Court, however, did allow that DNA manipulated in a lab is eligible to be patented because DNA sequences altered by humans are not found in nature. Thus complimentary DNA (cDNA) sequences can be patented in the US. The Court held: "A naturally occurring DNA segment is a product of nature and not patent eligible merely because it has been isolated, but cDNA is patent eligible because it is not naturally occurring."

The same gene patent of Myriad Inc. was also subject of litigation in Australia. Unlike the US law, where "laws of nature, natural phenomena and abstract ideas" are exceptions to patentability, under the Australian law an invention is *prima facie* patentable if it is a 'manner of manufacture'. The High Court of Australia (the apex court), in D'Arcy v. Myriad Genetics, held that a gene's substance is information embodied in arrangements of nucleotides and hence is not a manner of manufacture. The information is not 'made' by human action. Disallowing the Myriad patent, the Court observed that "while the invention claimed might be, in a formal sense, a product of human action, it was the existence of the information stored in the relevant sequences that was an essential element of the invention as claimed". Thus, the key element of isolated DNA – the genetic information itself – is not patentable in Australia.

Myriad Effects

Although it was human gene that was involved in the above said Myriad cases, the rulings does/would have effects on the patents pertaining to agricultural biotechnology. The Indian Patent Office (IPO) had also granted multiple patents claiming isolated genetic material and nucleotide sequences,[35] including the Bt Cotton Technology that was granted patent in India in 2009.

Post-Myriad judgements, in 2013 the IPO published the Guidelines for Examination of Biotechnology Applications for Patent (GEBAP), which explicitly states that "products such as microorganisms, nucleic acid sequences, proteins, enzymes, compounds, etc., which are directly isolated from nature, are not patentable subject-matter".

As far as biotech patents in India are concerned, till 2002, patents were not granted for inventions relating to (a) living entities of natural or artificial

Box 4.5: Guidelines for Examination of Biotechnology Applications for Patent: Relevant Features

The GEBAP, which is meant for patent examiners and are non-binding in nature, has cautioned saying:

> "…there are some issues relating to patentability of biotechnological inventions which are of serious concern to the users of Patent System such as novelty, obviousness, industrial applicability, extent of disclosure and clarity in claims. In addition, a few special issues have also evolved such as those relating to moral and ethical concerns, environmental safety, issues relating to patenting of Expressed Sequence Tags of partial gene sequences, cloning of farm animals, stem cells, gene diagnostics, etc. Thus, the patenting of inventions in the field of biotechnology poses challenges to the applicants for patents as well as to the Patent Office… These guidelines are intended to help the examiners and controllers of the Patent Office so as to achieve uniformity and consistency"

> "biotechnology deals with living subject matters and involves alteration of genomic materials of an organism. Such change may influence or may have a deep impact upon the environment or the human, animal or plant life or may involve serious questions about morality. Hence, adequate care should be taken while examining the inventions vis-à-vis their primary or intended use or commercial exploitation and it should be carefully dealt so that the subject-matter must not be contrary to public order, morality or causes serious prejudice to human, animal or plant life or health or to the environment."

origin, (b) biological materials or other materials having replicating properties, (c) substances derived from such materials and (d) any processes for the production of living substances/entities including nucleic acids.

In 2002, the Calcutta High Court, in its decision in *Dimminaco AG v. Controller of Patents and Designs* opened the doors for the grant of patents to inventions where the final product of the claimed process contained living microorganisms. The court held that a new and useful art or process is an invention, and where the end product (even if it contains living organism) is a new article, the process leading to its manufacture is an invention. That there was no statutory bar in the patent statute to accept a manner of manufacture as patentable even if the end product contained a living organism.

In 2002, the Patents Act was amended and biochemical, biotechnological and microbiological processes were included within the scope of chemical processes for the grant of patent. The definition of 'invention' was also changed to 'any new product or process involving an inventive step and capable of industrial application' thereby deleting the word 'manner of manufacture' as mentioned in the earlier Act. The 2005 amendment of the Patents Act paved the way for the grant of product patents in any field of technology including biotechnology with certain exceptions.

Although, microorganisms are excluded from non-patentability list, a conjoined reading with Section 3 (c) of the Act implies that only modified microorganisms, which do not constitute discovery of living thing occurring in nature, are patentable subject matter under the Act.[36]

Patent vs. PBRs

India does not provide for patents on seeds and the protection is provided via a *sui generis* legislation PPVFR Act. Under this law, like plant breeders, farmers also have 'rights', *inter alia* to save, exchange and sell (in non-branded form) seeds from their fields, even if the same is protected under the Act. However, private seed companies mostly develop hybrid varieties, which though can be re-sown but yield declines substantially. Therefore, farmers would need to buy every season. This gives protection to the investment of private seed companies.

Nonetheless, Bt cotton seed presents a special case where the 'Bt cotton technology' is patented, while the new varieties in which Bt gene has been inserted are provided with Plant Breeders' Rights (PBRs) under the PPVFR Act. According to the draft GM Licence Guidelines (discussed above) in such a situation the IP protection of the GM seed would be *per se* under PPVFR, which does not pose much hurdles in the access of patented GM traits. A case for licencing under FRAND term has been made. This goes against the rights of patent holders under the Patents Act, and hence presents a conflicting situation between the two IP legislations.

The National Seed Association of India (NSAI), body of domestic seed companies (of which most Bt licencees are members), however, goes a degree further. According to the NSAI interpretation, all breeders and researchers – public or private – have "right to access to trait" and the trait owner can be compensated under benefit sharing scheme provided by the PPVFR Act (see Box 4.6 for details.)

Box 4.6: Stated Position of NSAI
The position of NSAI with respect to the application of right legislation for fixation of trait value can be read into the following paragraphs, taken from their letter to NITI Aayog. Excerpts: We would like to reiterate that as per the Indian IPR laws which are TRIPS compliant, the seeds and plants cannot be patented. Monsanto obtained patents in India for cotton transformation and event identification based on their patents of US under PCT. However, it can be noted that the claims granted to them by the Indian patent office does not cover any IP rights to Monsanto on seeds and plant varieties as specifically prohibited under Section 3(j) of the Indian Patents Act, 1970. The IPR for seeds and plant varieties are covered by a *sui generis* enactment known as PPVFR Act, 2001 in India. Therefore, the subject of Bt cotton seeds is entirely covered only under this enactment.   As per the provisions under Section 30 of PPVFR Act, all the breeders in public, private seed companies or research institutes have a right to use any protected variety including a transgenic variety carrying a transgenic trait for developing new varieties which are registerable for IP protection under Section 18 of the Act and can enjoy IP protection under Sections 24 and 28 which includes rights to exclusive commercialisation.   The developer of a trait like Monsanto is also provided rights under Section 26 to claim benefit share which has to be determined only by the PPVFR Authority. All the breeders who used such trait are liable to pay a trait value as determined by the Authority under the benefit sharing agreement. The Authority is also empowered to facilitate recovery of the benefit share amount in case the breeders fail to pay to the trait developer.   The provisions of the PPVFR Act are balanced taking care of the interest of the trait developers, breeders, seed companies and the farmers. The trait developer can make claims and justify such claims so that the Authority can fix appropriate trait value.

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NSAI recommended to the Department of Agriculture & Cooperation to issue guidelines under the PPVFR Act so that the PPVFR Authority determines the trait value which the breeders have to mandatorily pay for using such trait for developing new varieties. As access to trait is provided as a right under PPVFR Act, no licencing of a trait is required under the law. This is part of the IP legislation of India and therefore there may not be any need to use the provisions of the EC Act, 1955.

Source: Letter from NSAI to Niti Ayog; dated 09.09.2016, Ref: NSA/2016/107

In light of the interpretations presented by the Department of Agriculture Cooperation and Farmers' Welfare and the NSAI, it becomes apparent that there is an inherent tension between the two legislations – Patents Act, 1970 and the PPVFR Act, 2001 – demanding legal clarity on the issue. In addition, as the two laws are under the jurisdiction of two different departments/ministries (viz. DAFW and DIPP) matter could become worse.

The National Intellectual Property Rights Policy, 2016 (adopted by the Cabinet on May 12, 2016) clearly visualise such situations when it says:

> "Intellectual property in India is regulated by several laws, rules and regulations under the jurisdiction of different Ministries/Departments. A number of authorities and offices administer the laws. The legal provisions need to be implemented harmoniously so as to avoid conflict, overlap or inconsistencies among them. It is necessary that the authorities concerned administer the laws in coordination with each other in the interest of efficient administration and user satisfaction. Legal, technological, economic and socio-cultural issues arise in different fields of IP which intersect with each other and need to be addressed and resolved by consensus in the best public interest." *(emphasis added)*

Furthermore, the Objective 3 of the National IPR Policy, 2016 is "to have strong and effective IPR laws, which balance the interests of rights owners with larger public interest". Under this objective, the Policy *inter alia* envisages "identifying important areas of study and research for future policy development", which includes: (1) Interplay amongst IP laws, and between IP laws and other laws to remove ambiguities and inconsistencies; and (2) IP interface with competition law and policy.

Therefore, to resolve the said conflict 'by consensus in the best interest of public'; studies should be conducted to remove ambiguities and inconsistencies and also stakeholder consultations in different parts of the country. Further, studies on the IP interface with competition law and policy in the GM Cotton Seed sector may also be conducted with the aims to make policy recommendations vis-à-vis balance of the rights and obligations, which may include licencing on FRAND terms.

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Endnotes

1 Bollgard is the brand owned by Monsanto Inc. BG-I contain one Bt gene stacked with the base cotton variety and BG-II contains two Bt genes.

2 Patent No. 232681, with effect from June 05, 2002

3 CCI order dated 10.02.2016 on Reference Case No. 2 of 2015 & Case No. 107 of 2015

4 *Ibid*

5 CCI, Case No. 02/2015; p7; http://www.cci.gov.in/sites/default/files/Ref%20Case%20022015%20%26%20others.pdf (accessed on 17.01.17)

6 *Ibid p8*

7 Under Section 19(1) of the Competition Act

8 Under Sections4(2)(a)(i), 4(2)(a)(ii), 4(2)(b), 4(2)(c) and 4(2)(e)of the Act

9 Under Sections3(1) and 3(4) of the Act

10 M.S. Sahoo

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33 Section 3(c)

34 Section 3(j)

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CHAPTER 5

Fair Reasonable and Non-Discriminatory Licencing for Standard Essential Patents and Competition with Special Reference to India's ICT Sector

Introduction

Standards are often viewed as group of technical specifications which provide a common design for some product or process.[1] However, in context of Information and Communication Technology (ICT), the scope of standards is not limited to mere technical specifications and rules.[2] This is because standards play a major role in determining the nature and scope of the underlying technology that makes it possible for devices to interconnect and determine the manner in which technologies engage with consumers, businesses and other relevant stakeholders.[3] This implies that standards not only play an integral role in defining technical specifications (which enhance interconnectivity), but also aid in shaping the development of socio-economic ecosystems. This makes standardisation an important process, not just for technology developers and innovators but for economies and consumers at large.[4]

Standards have since long played an omnipresent role in our everyday lives and their pervasiveness will continue to increase as we move towards a super-connected future steered by the Internet of Things (IoT). By ensuring interoperability and connectivity amongst products, standardisation has the potential to enhance business efficiency and market competition. It also benefits consumers in terms of choice, prices, quality and access to novel goods and services, thereby encouraging competition and innovation.[5]

There are several models through which a standard can be set, such as government-led, proprietary and collaborative standard setting. Owing to its relative advantages (relatively more competitive and encourages participation, which resultantly enhances network effects and benefits the consumer) the collaborative standard setting model, which is predominated by Standards Setting Organisations (SSOs) and industry consortia has been widely become the norm.

However, as SSOs have to inevitably inculcate patented technologies while they determine standard specifications; collaborative standard setting processes become increasingly complex and can often lead to conflicting situations between patent holders and prospective patent licencees.[6]

This is primarily because once the patented technology has been included in an industrial standard, it becomes mandatory for all downstream manufacturers to enter into a licencing agreement with the SEP holder in order to have access to the technology. The licencing process is susceptible to serious anti-competitive practices (owing to the possible anti-competitive behaviour of licencors or licencees) such as patent holdup, patent holdout, royalty stacking, refusal to licence and exclusion of downstream players from the market.[7]

In order to prevent a situation where the SEP holder exploits his newly gained advantage over essential intellectual property (to the detriment of competition) and simultaneously ensure that the SEP holder is duly compensated for its investment risk, (costs incurred due to Research & Development) thereby maintaining incentives to innovate, the SSOs generally demand a FRAND licencing commitment through their IPR policies.[8] This commitment entails that the SEP holder is obligated to licence the SEP on FRAND terms in return for which he would be entitled to a FRAND royalty.

Although it is apparent that the FRAND commitment is envisaged to curtail the actions of the licencors and licencees and therein protect competition and innovation in the market (as it balances their interests), but in the absence of a concrete definition of FRAND and due to varied interpretations advanced by licencors and licencees alike, the process of licencing of essential technology has been marred by several legal clashes between technology developers and implementers.

Standard Essential Patents and the Rationale of FRAND

Standards are generally set by SSOs through a competitive process wherein the best technology is vetted and subsequently included in the industrial standard.[9] The SSOs are usually industry specific and their members are important players and stakeholders of the particular industry for which the standard is set.[10] All the SSOs have an Intellectual Property Rights (IPRs) policy and the members of the SSOs are mandated to abide by it.

It is pertinent to note that patents which have been inculcated into standards through the standard setting process cannot be exploited without the permission of the Standard Essential Patent (SEP) holder. This entails that without getting a licence from the SEP holder, an industry player cannot manufacture a product which relies on that particular standard (unless he includes the underlying patented technology without getting a licence, which would lead to infringement). This peculiar situation is most prevalent in technology driven industries because the production of a product is generally reliant upon several SEPs and the industry is locked into patented technologies.

One may argue that once the standard has been set by the SSO, the SEP holder has the potential to exploitatively dominate the market by holding up the industrial players through a refusal to licence. In order to avoid such a situation, before adopting the patented technology in a particular standard, the SSOs require the SEP holder to agree to a FRAND licencing commitment.

The rationale of this commitment is to curtail the actions of the licencors and licencees by avoiding anti-competitive results, maintaining the incentives to innovate and facilitating the licencing of essential intellectual property. The commitment means that if a particular patented technology finds itself as a part of a final standard (taking the form of an SEP), the SEP holder will licence it to all potential licencees on FRAND terms in consideration of a FRAND royalty.[11]

Subjecting the licencing of SEPs to FRAND conditions is essential to retain the competitiveness in the industry. As Justice Birss notes in *Unwired Planet International* v. *Huawei Technologies*[12]: *"The underlying purpose of the FRAND undertaking is to secure a proper reward for innovation whilst avoiding "hold up", i.e. the ability of the owner of a SEP to hold implementers to ransom by reason of the incorporation of the invention into the standard by declining to grant them a licence at all or only granting one on unfair, unreasonable or discriminatory terms. The idea is to strike a fair balance."*[13]

However, the way in which FRAND conditions practically play out in the licencing process between the SEP licencors and licencees comes with its set of problems. A major practical repercussion of the FRAND commitment is the problem of its enforceability. FRAND is nowhere defined explicitly and due to the lack of a specific universal definition, it is widely disputed and differently interpreted by SEP owners and licencees. As a consequence of varied interpretations, licencors and licencees arrive at different royalty rates for SEPs and end up in disagreement. As a result, negotiations fail and generally transform into high octane legal disputes. The global phenomenon of increased litigation is especially predominant in industries such as telecommunications.[14] It has posed immense challenges for competition authorities and courts worldwide.

Meaning of FRAND

Before delving into different interpretations of the term, it is important to mention at the outset that there is a divergence of opinion as to whether the term should be defined or not. Some experts believe that FRAND has worked till now and if the term is left undefined under IPR policies and interpreted on a case-to-case basis, it would ensure that the process of standard setting is competitive and licencing process of SEPs remains flexible.[15] Proponents of this stance believe that defining FRAND would undermine the natural licencing process and lead to disincentives to innovate.

On the other hand, some propose that the absence of a concrete definition is causing confusion among licencors and licencees which is the root cause of litigation.[16] According to them, it is important to define these terms in order to check the abusive practices by SEP holders.[17] Be that as it may, it is necessary to delve deeper into its meaning in order to demystify its possible impact.

Meaning of Fair and Reasonable

Several scholars have tried to define and interpret the terms fair and reasonable.[18] One definition states that the SEP holder cannot charge over and above the next best alternative invention.[19] He is under an obligation to charge according to the 'incremental value' of the technology.[20] Another definition includes *ex-ante* rate of the technology before the standard is adopted.[21] This means that any rate above the competitive rate which would have been decided before the standard was set, would be unreasonable and unfair.[22] Reasonable and fair would assume that there was open competition amongst other competitors for implementation of standards.[23] The royalty rate which the patent holder could have obtained during the competitive phase would be reasonable and not the one which the SEP holder can haul out after his technology has been locked-in the industry standard.[24]

The terms fair and reasonable are also viewed from the angle of the patent holders' right to be rewarded for the invention. According to this perspective, the FRAND commitment made by the patent owner does not take away his right to adequate compensation for his invention.[25] Hence, the only repercussion of the FRAND commitment is that the SEP holder cannot refuse to enter into bona fide negotiations.[26] The fair and reasonable royalty rates will then be set during the process of negotiations and there is no obligation upon the SEP holder to adhere to a specific royalty amount.[27] Thus, the royalty decided through a fair negotiation process between the parties will amount to a fair and reasonable licence.[28]

Meaning of Non-discriminatory

In addition to the commitment of reasonableness and fairness, the SEP holder also commits to not discriminate amongst different market players.[29] The non-discrimination element of FRAND essentially indicates that rightholders cannot discriminate between implementers that are 'similarly situated'.[30] The commitment of non-discrimination does not mean that discrimination *per se* is a violation of the FRAND commitment because it may be the case that in order to provide with reasonable and fair terms to all licencees, the licencor has to differentiate amongst differently placed players.[31] Thus, discrimination is not always anti-competitive and harmful to competition. But the question which needs to be answered is up to what extent such discrimination is just and fair.

Possible discrimination happens when the patent holder utilises his market power which he gained through the standardisation process against the interest of competitors (in technology and downstream market). In order to drive out a particular competitor, he can discriminate by demanding different terms of licencing to similarly placed manufacturers.[32]

Such a differential treatment would be against the 'non-discriminatory' commitment when the market player charges downstream players more than what he would charge himself if he were to use such an SEP as an input for manufacturing. Hence, economic rationale suggests that discrimination is effective for the general welfare of the industry and can be harmful only in certain circumstances where competition in the market is affected negatively. Where downstream users require a particular patented technology and the owner discriminates with the intention to foreclose competition without objective reasoning, it may amount to discriminatory behaviour contrary to commitment of non-discrimination.

There are a number of perspectives which view the meaning of FRAND from different angles. The fact that there is lack of certainty in this area leads to divergent views, which consequently has an effect on the calculation of FRAND royalties. Therefore, a concrete and holistic picture is required which inculcates all legal and economic factors involved in the FRAND commitment.

Standard Setting Organisations and Definition of FRAND

The chief objective of the SSOs is to voluntarily adopt a standard which involves vetting and choosing from available technological solutions through a democratic process. In order to facilitate this process, the members are generally required to abide by two major conditions (among others) which emanate from the IPR policies of SSOs. Firstly, the SSOs' policies generally require IP disclosures from all members.[33] It is normally seen that these disclosures have two layers. First is disclosure of issued patents and second is the disclosure of the pending applications at the respective IPR office of a particular jurisdiction.[34] Secondly, almost all SSO policies require the members to agree to licence the SEPs on FRAND terms.

Interestingly, the IPR policies of SSOs differ on the explanation of the terms 'FRAND'. Some SSOs do not explain FRAND at all, leaving it to the parties to negotiate upon and decide conclusive licencing terms. By not defining FRAND, the licencees and licencors are free to negotiate licencing terms and the SSO does not interfere in the process. The advantage of this non-interventionist approach is that the selection process of patented technologies is purely dependent upon the technological merit of patents. By exercising this approach, the SSOs role is restricted to just selecting the relevant standards and the licencing of the SEPs is completely dependent upon negotiations in the market. The flexibility of the approach ensures that the standard setting process remains completely transparent and competitive.

For example, one of the chief SSOs responsible for adoption of global telecommunications standards i.e. the European Telecommunications Standards Institutes' (ETSI) does not define FRAND and simply states that: "When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an irrevocable undertaking in writing *that it is prepared to grant irrevocable licences on FRAND terms and conditions…*"[35]

In furtherance of facilitating the process of licencing, the ETSI has a provision for voluntary, unilateral, public *ex-ante* disclosures of licencing terms. Interestingly, the provision is not obligatory in nature and ETSI members are not mandated to disclose any licencing terms related to any of its IPRs.[36] The policy of ETSI states that: *Neither explicitly nor implicitly does any such ex ante disclosure of licencing terms represent ETSI nor its members' interpretation of FRAND terms and conditions as set forth in Clause 6.1 of the ETSI IPR Policy.*

This provides the flexibility to the members and also has no adverse effect on the interpretation of FRAND. Hence, by not explaining the term 'FRAND' and by incorporating a provision for voluntary *ex-ante* licencing disclosures, the ETSI has maintained the suppleness of individual negotiations between parties and also ensured that disputes are mitigated.

However, the approach of not providing a definition of FRAND has also faced criticism. It has been argued that in the absence of a definite meaning of FRAND, the potential licencees do not get an opportunity to ascertain what the actual terms of licence are or will be.[37] This leads to inconsistency in the negotiation process and eventually results in litigation between licencors and licencees.

Hence, to bring in certainty and consistency in the negotiation process and avoid litigation, some SSOs provide for an explanation of the term in their IPR policies and favour a certain interpretation.

This approach is exemplified from Institute of Electrical and Electronics Engineers' (IEEE) IPR policy. The policy which was amended in 2015 has attempted to clarify the definition of 'reasonable rate'. It defines reasonable rate to be that rate which is deemed to be appropriate compensation to the patent holder irrespective of the value assigned to the patent after the patented technology was included in the standard.[38]

Also, the policy states that the value of the patent should be based on the smallest saleable unit of the invention. This is an inclusive definition of FRAND and supports the valuation of a patent based on the Smallest Saleable Patent Practicing Unit (SSPPU) and not on the Net Selling Price (NSP) of the product. So if a chipset which is manufactured by a SEP holder is to be licenced, the licencor would be entitled to a royalty rate based on the chipset price and not based on the NSP of the mobile phone in which it is integrated.

Notably, instead of assigning certainty to FRAND, this change to the IPR policy had a possible negative effect on the standardisation process itself and divided the industry further. Several companies such as Cisco Systems Inc., Intel Corp., Verizon Communications Inc. and Apple Inc. supported the inclusion of definition.[39] According to them, the change is pro-competitive and would help deter companies from demanding excessive royalties.[40] On the other hand, members of the Innovation Alliance, i.e. Qualcomm Inc., Ericsson, Tessera Inc. and Dolby Laboratories Inc., criticised this move. According to them, the policy support to the SSPPU model lowers the incentives to innovate and undermines their property rights.

Rather than facilitating the negotiation process, further polarisation would lead to more litigation. The general approach of defining FRAND in IPR policies has also been criticised by some authors. The argument against an inclusive definition is that the FRAND term is intended to be a general clause which can apply subjectively to all circumstances.[41] A strict/narrow definition may lead to unnecessary interference with negotiations which is contrary to the intention of having a wide interpretation to FRAND.[42]

It is thus favourable to have such a clause of generalised nature so that it can take into consideration the specific circumstances of both the licencees and licencor depending on facts and circumstances of each case.[43] Also, the inclusion of the SSPPU principle in the SSO IPR policy has been criticised on the basis that it may not be appropriate for real-world arm's length negotiations between sophisticated market participants.[44]

Methodologies of Determination of FRAND

In light of the above-mentioned inharmonious perspectives and in the absence of theoretical certainty as to what constitutes FRAND, practical implications transpire in the form of legal battles between licencors and licencees. Where licence agreements and negotiations fail to see the light of day, it is often left to the courts (in cases of infringement of SEPs) or arbitrators to decide appropriate and reasonable royalties for SEPs.

Factors for Determination of FRAND via Adjudication

In order to reach a reasonable royalty rate which constitutes a FRAND licence, the courts in several jurisdictions have laid down various considerations and factors. In the US, one of the most important cases in this regard is *Georgia-Pacific Corp.* v. *US Plywood Corp.*[45] This decision while deciding on damages in case of infringement of patents which came under the FRAND commitment, laid emphasis on 15 factors which are still relied upon by courts.[46] One of the main factors was the focus on prior licencing agreements which have been entered into by the patentee.[47] These licencing agreements would shed light upon the terms previously reached at through negotiations and would provide important insights into what the reasonable royalty can be in another similar circumstance.

Another relevant evidentiary fact to be considered is the policy of the licencor which has the objective of maintaining monopoly.[48] This policy can be implemented by not licencing the patents intentionally to certain players or by subjecting the licence to such conditions which would aid in preserving the monopoly position.[49]

Yet another important factor to be considered while determining reasonable royalty is distinguishing the non-patentable elements from the patentable ones and then the amount of appropriate royalty corresponding only to the patentable invention should be fixed.[50]

Finally, a prudent and reasonable amount of royalty would be the one which both parties would have agreed upon before the infringement, assuming both were willing to enter into a *bona fide* licencing agreement.[51] Royalty would be considered as reasonable, when it is the amount which a prudent patent owner would desire through a normal and usual business offer and when it is at a point wherein the licencee may be able to make rational profits.[52]

This was in a modified sense applied in the case of *Microsoft Corp.* v. *Motorola.*[53] In this case, Motorola offered its SEPs to Microsoft on terms which were alleged to be unreasonable and Microsoft contended that such terms were against Motorola's FRAND commitment which it made to IEEE and ETSI.[54]

Applying the *Georgia-Pacific* factors in the context of SEPs, Judge James Robart held that the reasonable royalty of a patent is the one which is reflective of the true value of the patent in a competitive environment.[55] Royalty rate which is demanded once the standard has been implemented and the patent has been locked in is unreasonable.[56]

The next best alternative approach or the incremental value approach was also applied and the judge mentioned that a royalty is reasonable when it is fixed up to the extent of the value of the next best alternative available at the time of standard setting.[57] He also bestowed importance on previous comparable licences which in his opinion would help in imagining a hypothetical situation where the negotiations between the parties could be envisaged and a reasonable royalty rate is determined.[58]

In the UK, a recent landmark judgement in the case of *Unwired Planet International* v. *Huawei Technologies* elucidated that "asking what a willing licencor and a willing licencee in the relevant circumstances acting without holding out or holding up would agree upon" is likely to help determine what FRAND is and what it is not.[59] To the end of demystifying FRAND, the court looked at decisions of other courts as indicative precedents and mentioned that evidence of negotiations between parties will be pertinent along with comparable licences to the extent they are relevant to the facts of a case.[60]

The court concluded by stating that: *"An appropriate way to determine a FRAND royalty is to determine a benchmark rate which is governed by the value of the patentee's portfolio. That will be fair, reasonable and generally non-discriminatory. The rate does not vary depending on the size of the licencee. It will eliminate hold-up and hold-out. Small new entrants are entitled to pay a royalty based on the same benchmark as established large entities."*[61]

Deciding the Royalty Base

Reasonable royalty in case of a particular patented technology also depends on the value of the patent and this is a particularly complex issue in areas like telecommunications. The contentious issue with regard to telecommunication products is whether this value is attributed only to the 'SSPPU' or whether it is attributable to the entire end pro duct taking into account the Net Selling Price (NSP) of the product.[62] This problem was also recognised by Judge Robart when he mentioned that the importance of the patent to the user is one of the factors which have to be taken into consideration.[63] However, it is still not clear as to how this value will be determined.

Discussing the two royalty bases in an infringement suit, the Federal Circuit in the US held in the case of *Laser Dynamics, Inc.* v. *Quanta Computer,* *Inc.*[64] that where the patent in question adds to only one of the constituents of a product which is multi-component in nature, such a plaintiff (alleging infringement) cannot ask for a royalty rate to be set according to the NSP of the product. However, when the value of the product is so dependent on the patented technology that it contributes to several constituents of the product, then the NSP approach could be an appropriate one.[65]

Thus, the general rule required reliance on SSPPU and the NSP rule was held to be a narrow exception. However, the opposite view was taken in the case of *CSIRO v. Cisco*[66] where the court held that, "Basing a royalty solely on chip price is like valuing a copyrighted book based only on the costs of the binding, paper, and ink needed to actually produce the physical product. While such a calculation captures the cost of the physical product, it provides no indication of its actual value."[67] In addition to the US, the NSP approach was also followed by the Chinese Competition Law Authority (The National Development and Reform Commission) in the Qualcomm case.[68]

In this context, a very balanced approach for patent valuation has been put forth by the European Commission, which highlights the following broad principles of IP valuation:

- Licencing terms have to bear a clear relationship to the economic value of the patented technology.
- Determining a FRAND value should require taking into account the present value added of the patented technology. That value should be irrespective of the market success of the product which is unrelated to the patented technology.
- FRAND valuation should ensure continued incentives for SEP holders to contribute their best available technology to standards.
- To avoid royalty stacking, in defining a FRAND value, an individual SEP cannot be considered in isolation. Parties need to take into account a reasonable aggregate rate for the standard, assessing the overall added value of the technology.[69]

In essence, the EC did *not* endorse the so-called use-based licencing approach whereby SEP holders are able to charge different rates depending on the product in which the technology is used and the value of the patent is irrespective of the market success of the product which is unrelated to the value of the patented technology.[70]

On the other hand, the EC also recognised that parties need to take account of a reasonable aggregate rate for the standard and an individual SEP cannot be considered in isolation.[71] Such an approach seems optimal as it balances the interests of all stakeholders involved in the standard setting process and ensures that consumers accrue maximum benefit from the process.

SEP Licencing and FRAND Royalties in India

India is also currently witnessing several disputes at the interface of SEPs and competition law. The disputes have predominantly arisen in the telecommunications sector. Ericsson being the owner of numerous SEPs for 2G, 3G and 4G technologies in GSM standard compliant mobile communication devices in India, has filed several infringement lawsuits against mobile handset manufacturers. Simultaneously, the handset manufacturers such as Intex, Micromax and iBall have filed antitrust complaints at the CCI against Ericsson alleging abuse of dominance.

Competition Commission of India's View

Indian mobile handset manufacturers in several complaints have raised anti-competitive concerns against Ericsson. The first instance where an SEP holder was accused of anti-competitive behaviour was in 2013 when Micromax filed information with the CCI against Ericsson, under Section 19(1)(a) of the Competition Act.[72] In nutshell, the basic issue which the manufacturers (in addition to Micromax) have raised is Ericsson's demand for excessive royalties. Ericsson owns several SEPs with respect to the Global System for Mobile Communication (GSM) standard set by ETSI. While licencing these SEPs to handset manufacturers like Micromax, Ericsson demanded royalties which were based on the Net Selling Price of the end product. According to Micromax and others, this demand was considered to be arbitrary and abusive and was allegedly in contravention of the FRAND commitment made by Ericsson to the ETSI. By demanding unfair, discriminatory and excessive royalties based on the Net Selling Price of the mobile handset, it was alleged that Ericsson abused its dominance in the relevant market of "*SEP(s) in GSM compliant mobile communication devices in India.*"

In 2013, in its *prima facie* order under Section 26(1) of the Competition Act, considering Ericsson's ownership over wide ranging SEPs and the lack of substitutability of the relevant product, CCI stated that Ericsson was dominant in the relevant market.[73] Moreover, according to the Commission, the royalties charged were unrelated to the patented product and were thus against the FRAND commitment. In other words, the order indicates that conceptually, the Commission was against the methodology of determining royalties according to the final selling price of the product and was in favour of the fixing royalty based on SSPPU. Based on this reasoning, an order was passed by the Commission directing the Director General to investigate the matter and report back to the Commission with its findings. The case remains under investigation.

Delhi High Court's Stance on SEP Infringement Cases

Subsequent to the complaint filed by Intex, Ericsson approached the Delhi High Court and filed for injunction against the infringement of its SEPs, related to 3 technologies in the telecommunications industry namely; Adaptive Multi-Rate (AMR) speech codec, features in 3G phones and Enhanced Data Rates for GSM Evolution (EDGE).[74] Ericsson also filed a lawsuit against Micromax in a writ petition challenging the prima facie orders of the CCI.[75]

In the case of infringement suit against Intex, the court while relying on Ericsson's technical expert evidence as well as the test results of the scientific evaluation of the handsets sold by Intex, concluded that the patents were infringed.[76] The court then had to decide upon a quantum of royalty which was to be paid to Ericsson. Interestingly, the DHC affixed the royalty base of SEPs according to the NSP of the end product i.e. the mobile handset. To decide the percentages of royalty rates, the court relied on the US case law of *CSIRO* v. *CISCO* which basically rejected the SSPPU model. The court also relied on the same methodology taken in the previous decision of *Ericsson* v. *Micromax,*[77] which looked at 26 licencing agreements and Competition Authority of China's similar decision in the Qualcomm case. The High Court's decision to rely on the NSP of the end product deviates from CCIs approach which *prima facie* favours the SSPPU.

Moreover, although the methodology to have the NSP as the royalty base is internationally recognized, the Delhi High Court failed to provide objective reasoning as to why the same should be applied to the facts and circumstances of the present case. Also, the balance of convenience according to the court was in favour of Ericsson because if injunction would not be given against Intex, other licencees who pay the royalty would be affected negatively.[78] This logic is quite farfetched because the injunction against Intex has far greater implications as it essentially means that the company would not be able to manufacture smartphones which infringed Ericsson's SEPs. Hence, one may argue that though the DHC's judgement in this case may be in tune with decisions from some other jurisdictions, it lacks strong economical and legal reasoning.

Jurisprudential Uncertainty in India

Jurisprudence in India regarding FRAND licencing and related anti-competitive effects has been somewhat uncertain until now. The CCI has consistently favoured conducting investigation to address potential abuse of dominance despite the fact that the DHC has taken the opposite view and granted injunctions in favour of the SEP holder. This contradiction is worrisome and is bound to have adverse implications on the huge Indian telecommunication industry.

This prevalence of judicial uncertainty is further evident from the contradictory views of the Delhi High Court and the Competition Commission of India with regard to the calculation of royalty rates. On one hand, the CCI appears to be favouring royalty rates which are based on the SSPPU and on the other side, the Delhi High Court found it more appropriate to rely on NSP of the downstream product. It would be interesting to see how the Director General (DG) moves ahead in the investigation against Ericsson and whether the CCI will continue to apply the complex SSPPU approach.[79]

Despite the probable divergence *vis-à-vis* FRAND royalty calculation in India, the Delhi High Court's judgement in the case of *Ericsson* v. *Micromax* was instrumental in interpreting competition laws and patent laws harmoniously.[80] The *prima facie* orders passed by the CCI were challenged in this petition, which effectively meant that the application of competition law to the SEP dispute was also under scrutiny. To this end, Ericsson challenged the orders of CCI based on the argument that the Patents Act being a special act, dealt with matters relating to abuse of patent rights, and should override the Competition Act which is a general law.[81]

The court undertook a detailed scrutiny of possible contradiction between both the legislations and came to the conclusion that both the Acts ought to be harmoniously construed and there was no inconsistency between them.[82] Thus, the question of Patents Act prevailing over the Competition Act was answered in the negative and CCI was given a go-ahead to investigate possible abuse of dominance of Ericsson.

Be that as it may, there still remains judicial uncertainty and regulatory vacuum with respect to the application of competition laws to SEP licencing and calculation of FRAND royalties in India. Some of the Delhi High Court (DHC) judgements on royalty setting seem to suffer from the want of economic rationale. Overall, his might have several distortionary effects on innovation, competition and consumer welfare. Some of these implications have been discussed below.

Possible Implications on Innovation and Competition in the Indian ICT Sector

Judicial contradiction is worrisome and bound to have adverse implications on the growth of the Indian telecommunication industry. It is also harmful to the licencing process and creates uncertainty in the minds of licencors and licencees alike. This inadvertently hampers the competitive functioning of the market and considerably affects its growth prospects.

It is relevant here to understand the possible implications of judicial contradiction and lack of an evidence-based regulatory approach to FRAND licencing on innovation and competition in India.

Licencing of IP is central to business conduct in technology- and knowledge-based industries and is expected to gain a more prominent role as society moves towards interconnectivity of electronic devices and the IoT. A barrier which companies are currently facing and will continue to face in the future is to put in place arrangements of licencing IP which do not contradict competition law principles.

Moreover, in the near future, industries will further converge and upcoming start-ups and small and medium-sized enterprises (SMEs) will increasingly be exposed to SEPs. It would be essential for emerging economies such as India (which are net users of technologies) to ensure that licencing of IP which is essential to interoperability standards does not impede access for users of that technology and simultaneously fairly compensates technology developers. A fine balance between protecting the incentives to innovate and promoting FRAND access to essential technology is to be maintained.

To this end, it is critical to understand that the FRAND provision/ requirement, which is an essential part of IPR policies of SSOs, ensures that a balance is maintained between the interests of technology developers and implementers. It decreases friction in the process of patent licencing and ensures that developers are adequately rewarded and implementers get FRAND access to the underlying technology. Insofar as FRAND is concerned, it can be seen as a facilitator of patent licencing negotiations. However, in cases where an alleged FRAND commitment violation has taken place, enforcers and regulators across jurisdictions have scrutinised it from the lens of contract law, patent law as well as competition law.[83]

Notably, complications with regard to FRAND licencing have increased the prevalence of industry and governmental belligerence towards the legality, manner and form of licencing of SEP technology. As a result, antitrust/ competition authorities and Standard Development Organisations across the globe have tended to enter into the realm of licencing of Essential IP.[84]

Although these institutions, including the ones in India have done so with the bona-fide intent of ensuring that technology transfer is undertaken in a fair and reasonable manner, they have incidentally also tried to ordain the manner in which industry players practice their rights over intellectual property in an ex-post manner (after the standard has been set).[85] This has the potential to adversely impact the collaborative standard development process as it could deligitimise the massive R&D efforts of technology developers and disincentives them from taking part in collaborative standards development processes. Also, such interferences which lack actual evidentiary support of competitive harm can have a negative impact on competition in the market.[86]

Furthermore, *ex-post* interventions which are not supported by economic evidence might delegitimise the standardisation process itself and thereby increase policy and regulatory uncertainty (PRU). Literature suggests that increasing PRU has a negative impact on investments.[87] Besides, uncertainty in one region and/or over-regulation may adversely impact foreign firms' decision to invest in that particular economy, which can further diminish the prospects of emerging economies to make the most of technology transfer and subsequent generation of local R&D.[88]

Although jurisdictions like India, which are net implementers of technology standards might feel that protectionist policies in the form of regulating patent licencing and/or domestic efforts of standards development might benefit the domestic players' capacity to innovate and compete in the global market, literature suggests that such policies might in fact have the opposite effect.[89]

Such legal interventions which lack a common economic footing might pose as impediments to the value proposition of the otherwise effective collaborative standardization platforms. Moreover, the fact that the proprietary mode of standardisation is not subject to similar regulatory and legal scrutiny poses a genuine challenge as to how incentives to innovate and participate in collaborative standardisation could be maintained and promoted.

Furthermore, due to the lack of a common policy vision towards standard setting activities and the underlying intricacies that come along with it (such as licencing of IP), adds to the lackluster nature of the overarching domestic innovation ecosystem in India.

From this follows the understandable need to have an evidence-based and economically sound regulatory or policy approach towards standardisation and licencing of IP.

Conclusion and Recommendations

Need for Evidence-based Guidelines

IP protection has been recognised across sectors as an important tool to foster innovation and growth for the benefit of businesses and consumers. Furthermore, licencing of IP is central to business conduct in technology and knowledge-based industries. It holds immense significance in network ecosystems such as ICT which rely on IP-based standards.[90]

However, as it is clear by now, licencing of patents which have been inculcated into standards poses a unique situation where the manufacturing of a standard-compliant device necessitates the inclusion of a particular patent or a group of patents. From this follows the natural corollary that licencing of SEPs becomes inherently different from licencing of a regular patent and the same might in some circumstances raise anti-competitive concerns in the industry (which might emanate from the licencors as well as licencees side).

The new Indian National IPR Policy (2016) recognises the importance of licencing of IP and supports the intervention of the CCI on anticompetitive IP licencing.[91] Several investigations into possible anti-competitive behaviour *vis-a-vis* IP licencing have been going on since quite some time now. Nevertheless, businesses in the Indian technology and knowledge-based industries are kept in the dark when it comes to the manner of application of the Indian competition law on matters of IP licencing and there is growing lack of clarity as to what licencing practices would or would not attract the application of competition law.

Moreover, as industries converge, several market players and new entrants would be exposed to SEPs and d require access to patented technologies which would constitute the upcoming standards. Bearing in mind the lack of clarity *vis-à-vis* application of competition laws to IP licencing, clubbed with the want for awareness generation regarding SEP exposure and standard setting activities, there is a clear need to have indicative guidelines which can put forth India's perspective on standardisation and subsequent licencing of SEPs for the benefit of the businesses and consumers.

However, these guidelines should be based on economic evidence and avoid an approach which introduces an imbalance between the 'need to protect incentives to invest' and 'promote FRAND access to patent-incumbent technologies'. Understandably, there is a need to check policy ambiguity in complicated areas like IP and competition as it jeopardizes the normal functioning of the market players and has a distortionary effect on the market. However, sub-optimal interventions might worsen the situation further by undermining the efficiency gains produced by standards. Eventually, apart from impacting the quality and ubiquity of the underlying standard, ill-judged regulatory actions might cause unnecessary burden on voluntary standard setting activities and on the contrary, incentivise industry players to shift to proprietary modes of standard setting.

Competition authorities abroad have recognised the importance of these issues and have consequently exercised their discretion to lay down important policy guidelines in application of competition/antitrust law principles on IP.

International experience shows that several market regulators across jurisdictions have released general guidelines on broader issues of standardisation including the application of competition/antitrust laws on IP licencing. For example, the Federal Trade Commission (FTC) in collaboration with the US Department of Justice (DoJ)[92], the Japan Fair Trade Commission (JFTC)[93] and the European Commission (EC).[94] In this regard, the EC, which recently released its Communication setting out specifically the EU approach to SEPs, is worth noting.[95] Keeping in mind the global relevance of standardisation of 5G and IoT, the EC highlights that

"The Commission considers that there is an urgent need to set out key principles that foster a balanced, smooth and predictable framework for SEPs. These key principles reflect two main objectives: incentivising the development and inclusion of top technologies in standards, by preserving fair and adequate return for these contributions, and ensuring smooth and wide dissemination of standardised technologies based on fair access conditions."

Furthermore, although such guidelines are not binding in terms of how enforcement and adjudication will take place, they could still help tackle the presence of judicial inconsistency with respect to the underlying contentious issues such as FRAND royalty rates and their calculation, which have previously led to failed or adversarial negotiations. For instance, assuming that such guidelines were present, they could have harmonised the divergent opinion of CCI and DHC on the appropriate SEP royalty base.

Considering the huge economic potential which the Indian telecommunication market holds, it is important for India to frame a definite and progressive policy on standardisation which incentivises technology development and also provides clarity over the underlying problematic issues such as legitimate licencing of IP and FRAND terms.

Recommendations Regarding Licencing Negotiations and Determining FRAND Royalties

For the adjudicatory bodies deciding possible cases of infringement, the determination of a FRAND royalty should depend upon the facts of individual cases. There cannot be a straightjacket formula which can be applied in an overarching manner. Factual circumstances of different cases portray the level of negotiations between the parties and provide the court with the necessary information about the lower and upper bounds for a reasonable royalty.

Moreover, in deciding whether to apply the SSPPU or the NSP model, the value of the product *vis-à-vis* the SEP should be considered. If the value is so dependent on the patented technology that it contributes to several constituents of the product, then the exceptional NSP approach can be followed (otherwise the general rule should be to follow SSPPU). Other important factors such as prior licencing agreements, hypothetical royalty rate before the patent is inculcated in a standard and differentiation between essential and non-essential patents should be kept in mind.

In antitrust cases, the objective of the court should be to protect the essence of the FRAND commitment and not go into deciding the reasonable royalty amount. There is emerging consensus amongst competition authorities across the globe that violating commitments to licence SEPs under FRAND terms can pose a significant threat to competition.[96] It is important to recognise the role that the FRAND commitment plays in facilitating standards development. It is an important facet for building collaboration among industry players which makes standards development an efficient process, thus enabling interoperability between products.[97] The FRAND commitment also ensures that innovation is appropriately rewarded and competition is not stifled.

Important guidance for competition authorities (while assessing cases of breach of FRAND commitment and subsequent abuse of dominance) can be acquired from the CJEU's decision in the case of *Huawei* v. *ZTE*[98]. The most important contribution of this decision is that the court laid down clear objective factors which are to be considered before a dominant SEP holder can seek an injunction from the court.[99] These factors create a fair balance between the rights of the SEP holders as well as the expectations of the licencees.[100]

Based on the aforementioned analysis, the following broad principles can help emerging jurisdictions such as India to frame policies which streamline licencing negotiations and aid adjudicatory bodies to determine FRAND royalties in a particular circumstance:

Principle 1: Facilitate the process of licencing and follow a general rule of non-intervention

It is recommended that the first and foremost endeavour of policymakers should be to facilitate free and fair negotiations to take place between the parties under conditions of full disclosure and transparency. The SEP holder and the licencee can amicably and consensually arrive at FRAND terms of licencing the SEP provided that they both act in good faith. This is the basic methodology for determining the value of the patents involved as both parties are fully aware of the technology involved in the licencing process. Negotiation is naturally the first effective option available as both parties are interested in dealing with each other in an amicable manner.

Generally, it is in the interest of the SEP holder to licence its SEPs to as many licencees as possible and get reasonable royalties from the same. On the other hand, the SEP implementer is interested in getting the licence as it seeks to maintain that particular standard and manufacture the product. The general business practice is that the SEP holder decides the value of his patent and makes offers to the potential licencees accordingly. Through continuous exchange of offers and counter offers between the parties, parties may eventually reach a consensus on royalty rates.

Moreover, the idea of FRAND has been evolved by SSOs, which have formulated processes and methods on the aspect of licencing SEPs. The approach taken by SSO's is based on transparency, democratic and collaborative ways of evolving their processes and standards. SSOs are constantly working towards devising mechanisms and methods which entice innovation and the world has seen fast adoption of new technologies in telecom sector. The general rule for jurisdictions such as India should be to avoid interventionist policies, such as those which define how patent holders licence their technologies and also determine FRAND royalty rates in an *ex-ante* manner. A general rule favouring a non-interventionist approach would ensure that incentives to innovate are kept intact, while access to technology is not impeded.

Principle 2: Focus on promoting good-faith negotiations

As FRAND or royalty issues emanate from failure of parties to arrive at a common ground *vis-à-vis* licencing terms, there is a considerable need for establishment of a mechanism which promotes good-faith negotiations and also adjudicates SEP and non-SEP licencing behaviour on an *ex-post* and on a case-to-case basis. There has been a high frequency of repeated failed negotiations (which have unfortunately occurred in India and abroad), on royalty setting and injunctions being granted for the mobile handset manufacturing. It will be unwise to adopt a similar practice for a sector, which is in nascent stages. The general rule should be that market forces should be able to manage the conflicts and dynamics on their own. However, in case of a failure of negotiations, incentivising market players to adopt alternative ways of dispute resolutions should be explored.

In cases where incessant negotiations between parties fail to produce any conclusive results, alternate dispute resolution mechanisms should be promoted. National standards development authorities such as Telecom Standards Development Society of India (TSDSI) can advocate for inclusion of ADR processes at the international SSO fora. This is because the IPR policies of international SSOs could contain fundamental considerations or indicators which are to be mandatorily considered by the parties while setting up FRAND licence terms. SSOs can unambiguously define and explain what a typical FRAND licencing procedure entails and should ideally put forth an attractive ADR mechanism which can then be adopted by market players. This necessarily does not imply that the SSO ought to mention a particular royalty base in its policy as the same can act as a detriment for members to take part in the collaborative standard setting process.

However, it is also important to mention the enforceability issue of the award, as there is always the possibility that the award given by the arbitrators is appealable in certain circumstances depending upon the jurisdiction where it is contested. Alternatively, arbitration systems which provide mechanisms for affixing licencing awards on SEPs can also emanate from local laws, but such a system has its own set of problems.

Baseball style arbitration proposed by Prof. Lemley and Prof. Shapiro, is also a possible option. Baseball style of arbitration means that the licencor and licencee both get an opportunity to decide upon what they think is reasonable rate of an SEP and then put them before the arbitrator.[101] The uniqueness of this style lies in the fact that the arbitrator has to choose the royalty rate put forward by either of the parties and cannot come up with his own royalty rate.[102] Also, the arbitration agreement would be binding and the parties would not be allowed to go to the court.[103]

But it has been criticised for being impractical and the outcome may not be truly reflective of the actual value of the SEP.[104] Moreover, a binding ADR system for licencing awards which emanates from legislation can also be criticised on the rationale that it can practically act as a mechanism for imposing compulsory licencing on SEPs.[105] This criticism was raised by patent owners when the government of Japan proposed the introduction of an ADR system (licencing award system for SEPs) within the patent law designed to deal with disputes on licencing of SEPs, which have a significant influence on society.[106]

Principle 3: Strengthen and harmonise the adjudicatory process

In case negotiations fail despite streamlined policies and regulations, it is important for jurisdictions, such as India to have in place an efficient approach towards final adjudication which is carried out by the courts/ competition authority. This is generally the stage where the SEP holder sues licencee for infringement or the licencee makes the antitrust claim. However, the courts deciding infringement suits have to be aware about the intention of the SEP holder and then decide whether the need for injunction is genuine or the suit is a mere threat by the SEP holder to gain an upper hand in the licencing negotiations. Also, the courts/competition authorities have to objectively assess the situation without any bias. The authority ought to define the relevant market very carefully because it is a substantial feature which decides whether the SEP holder is actually dominant or not.

Finally, it is important for courts and the competition law authority to work in harmony as much as possible. Only if the adjudicatory process is carried out harmoniously, it can result in creation of a regime which is guided by optimal responses to diverse competition concerns in the area.

Endnotes

1 The general agreed upon definition of standards is "a document, established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context". Derived from ISO/IEC Guide 2 (1996), definition 3.2

2 Kai Jakobs, Modern Trends Surrounding Information Technology Standards and Standardisation Within Organisations, 246, IGI Global Publications (2015)

3 *Ibid*

4 *Ibid*

5 Federal Trade Commission, *Standardized Technology and Standard Essential Patents*, (2013), available at https://www.ftc.gov/sites/default/files/attachments/press-releases/google-agrees-change-its-business-practices-resolve-ftc-competition-concerns-markets-devices-smart/130103google-seps.pdf and European Commission, Guidelines on the applicability of Article 101 of the Treaty on the functioning of the European Union to horizontal co-operation agreements, 4 (2010) available at http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52011XC0114(04)

6 Petrovèiè Urška, Competition Law and Standard Essential Patents: A Transatlantic Perspective, International Competition Law Series, 23 (2014).

7 For definitions of these terms, see NormanSiebrasse, *Holdup, Holdout and Royalty Stacking: A Review of the Literature* (January 20, 2017). Available at SSRN: https://ssrn.com/abstract=2902780 or http://dx.doi.org/10.2139/ssrn.2902780

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9 Standards set by SSOs are called *de jure* standards. However, standards can also be set in a *de facto* manner without any formal procedure. This generally happens over time, when a standard is adopted and widely accepted by the industry through natural processes.

10 Ghuman Parveer S., *Standard Essential Patents and Competition Law,* National Law University Delhi, LLM Dissertation (Unpublished), 19 (2016)

11 *Ibid.,* at 55

12 [2017] EWHC 711 (Pat)

13 *Unwired Planet International* v. *Huawei Technologies*, (n.12) at 20

14 For instance, see http://www.ipwatchdog.com/2017/10/11/qualcomm-antirust-war-patent-licensing-issues/id=88891/

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24 Shapiro Carl and Varian H., *Information Rules: A Strategic Guide to the Network Economy*, (n 16)at 240

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26 *Ibid*

27 *Ibid*

28 RAHNASTO, INTELLECTUAL PROPERTY, EXTERNAL EFFECTS AND ANTI-TRUST LAW, 105 (2003).

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31 Lemley Mark. A., *Antitrust, Intellectual Property Rights and Standard Setting Organizations,* (n.29)

32 The term similarly placed is also contentious and is undefined.

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36 ETSI and *ex-ante* disclosures, available athttp://www.etsi.org/about/how-we-work/intellectual-property-rights-iprs/ex-ante-disclosures

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42 *Ibid*

43 *Ibid.,* at 112

44 Long, David, IEEE's controversial proposed Intellectual Property Rights ("IPR") Policy amendments, (03/02/2015), available at http://www.essentialpatentblog.com/2015/02/ieee/

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46 For detailed list of all factors visit http://www.bvlibrary.com/pdf/files/courtcase/5368.pdf

47 See factor no. 2 in Georgia-Pacific Corp. v. U.S. Plywood Corp., 446 F2d 295, 1120 (2nd Cir 1971)

48 *Ibid.*, factor no. 4

49 *Ibid*

50 *Ibid.,* factor no. 13.

51 *Ibid.*, factor no. 15.

52 *Ibid.*

53 854 F. Supp. 2d 993, 999.

54 *Ibid.*, at 873

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56 *Ibid.*

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58 *Ibid.*

59 Unwired Planet International v. Huawei Technologies [2017] EWHC 711 (Pat), at 40

60 *Ibid.*, at 59

61 *Ibid.*, at 163

62 DEPARTMENT OF INDUSTRIAL POLICY AND PROMOTION, DISCUSSION PAPER ON STANDARD ESSENTIAL PATENTS AND THEIR AVAILABILITY ON FRAND TERMS, 26 (2016) available at http://dipp.nic.in/english/Discuss_paper/standardEssentialPaper_01March2016.pdf

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68 NDRC Administrative Sanction Decision No. 1 [2015] (Mar. 2, 2015), available at http://www.ndrc.gov.cn/gzdt/201503/t20150302_666209.html

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70 *See* FOSS Patents, EU guidelines on standard-essential patents favor product-centric businesses large and small, (2017), available athttp://www.fosspatents.com/2017/12/eu-guidelines-on-standard-essential.html and Fair Standards Alliance, *European Commission Roadmap Standard Essential Patents for a European Digitalised Economy Feedback* (2017)

71 *Ibid.*

72 Inquiry into certain agreements and dominant position of enterprise 19. (1) The Commission may inquire into any alleged contravention of the provisions contained in subsection (1) of section 3 or sub-section (1) of section 4 either on its own motion or on -
(a) [receipt of any information, in such manner and] accompanied by such fee as may be determined by regulations, from any person, consumer or their association or trade association;

73 Micromax Informatics Limited v. Telefonaktiebolaget LM Ericsson, Case No. 50/2013 available at http://www.cci.gov.in/sites/default/files/502013_0.pdf

74 Telefonaktiebolaget LM Ericsson v. Intex Technologies (India) Limited, March 13, 2015 available at http://lobis.nic.in/ddir/dhc/MAN/judgement/16-03-2015/MAN13032015S10452014.pdf

75 Telefonaktiebolaget LM Ericsson v. Competition Commission of India and Another, Delhi High Court 30.03.2016, available athttp://lobis.nic.in/ddir/dhc/VIB/judgement/30-03-2016/VIB30032016CW4642014.pdf

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81 *Ibid.*, at 83.

82 Telefonaktiebolaget LM Ericsson v. Competition Commission of India and Another, Delhi High Court 30.03.2016, at 127

83 Cotter Thomas F., *Comparative Law and Economics of Standard-Essential Patents and FRAND Royalties*, (n.55)

84 See *Revised IEEE IPR policy*, (2015) available at http://grouper.ieee.org/groups/pp-dialog/drafts_comments/SBBylaws_100614_redline_current.pdf ; *The IEEE's new patent policy one year on – the battle that's part of a bigger licensing war*, (2016) available at http://www.iam-media.com/Blog/Detail.aspx?g=e8f72d6e-a3f8-45d8-882f-3ebdd3a1d69e ; *Global antitrust in 2017 - IP and antitrust,* (2017) available at https://www.lexology.com/library/detail.aspx?g=fe14a250-d466-41a9-9bc0-8d152a035e37 ; *Licensing Terms of Standard Essential Patents,* (2017) available at http://publications.jrc.ec.europa.eu/repository/bitstream/JRC104068/jrc104068%20online.pdf

85 Kjelland Kurt M., *Some Thoughts on Hold-Up, the IEEE Patent Policy, and the Imperiling of Patent Rights,* available at https://www.law.berkeley.edu/wp-content/uploads/2015/09/17-Antitrust-Kjelland1.pdf and as Keith Mallison finds that inapplicable theories of harm and assertions with regard to SEP licencing are troublingly being adopted by judges and government agencies in their smartphone patent war rulings, despite the weight of so much evidence to the contrary. See Mallinson Keith,*Theories of harm with SEP licencing do not stack up,* (2013) available at http://www.ip.finance/2013/05/theories-of-harm-with-sep-licensing-do.html

86 Mallinson Keith, *Mallinson vs. Lemley & Shapiro 2006-2013*, Wise Harbor, (20th May 2013), available at goo.gl/ChF7RU

87 Baker, Bloom and Davis, Measuring Economic Policy Uncertainty, 10 March 2016, available at http://www.policyuncertainty.com/media/EPU_BBD_Mar2016.pdf and CUTS International, *Background note: Reducing Policy Uncertainty to revive investment*, October 2014, available at http://www.cuts-ccier.org/pdf/Background-Note-Policy_Uncertainty_Impedes_Investment-CUTS_Side_Event_at_the_World_Investment_Forum.pdf

88 *Taiwan Ministry expresses 'deep concern' about Qualcomm's antitrust fine*, Reuters (18th October 2017), available at https://www.reuters.com/article/us-qualcomm-taiwan/taiwan-ministry-expresses-deep-concern-about-qualcomms-antitrust-fine-idUSKBN1CN12Y

89 See Breznitz, Dan and Murphree, Michael, *The Rise of China in Technology Standards: New Norms in Old Institutions,* Research Report Prepared on Behalf ofthe U.S.-China Economic and Security Review Commission, (2013) and Contreras Jorge L., *National Disparities and Standards-Essential Patents: Considerations for India,* COMPLICATIONS AND QUANDARIES IN THE ICT SECTOR: STANDARD ESSENTIAL PATENTS AND COMPETITION ISSUES (Ashish Bharadwaj, Vishwas Deviah & Indraneth Gupta, eds., Springer,2017)

90 Standards define important technical specifications and enable interoperability between devices in network industries such as ICT. The process of standardisation is generally collaborative (industry-led) and highly technical and generally involves selection of patents which would go on to be essential to that standard (termed as Standard Essential Patents or SEPs).

91 National IPR Policy (2016), available at http://dipp.nic.in/English/Schemes/Intellectual_Property_Rights/National_IPR_Policy_08.08.2016.pdf

92 US DoJ & FTC, Antitrust Guidelines for the Licensing of Intellectual Property, https://www.justice.gov/atr/IPguidelines/download

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CHAPTER 6

Need for Proportionate Regulation of Digital Financial Services in India

Introduction

For long, delivery of basic financial services, i.e. savings, payments and credit, has been the forte of universal banks. Given the perceived risks, stringent entry and operational conditions have traditionally been imposed on financial service providers. Owing to such conditions and conventional approach to business, universal banks adopted an asset heavy model for delivery of financial services. This included establishment of brick and mortar branches and incurring significant operational costs. Further, from time to time, universal banks were required to carry out regulatory mandates in public interest. These included opening of zero balance accounts, mandatory lending to priority sectors at attractive rates, opening of minimum branches in rural areas, etc. Limited attention was accorded to these mandates to risks involved and the need to achieve financial feasibility of universal banks.[1]

To ensure the business remains viable, regulatory restrictions on operations were compensated by artificial barriers to competition. Consequently, the sector witnessed limited innovation and significant proportion of population effectively remained excluded from formal financial services. High transaction costs and bureaucratic impediments to participate in the formal financial sector exacerbated the situation. Even after seven decades of independence, high dependence on non-institutional sources (money lenders) for credit, low insurance penetration and near total absence of pension wealth, remains a reality for many.[2]

The sector ached for an innovative asset light model which could take formal financial services within the grasp of hitherto excluded. For truly serving the needs of bottom of the pyramid, the design, terms and conditions of the financial products and services should match the needs, demands, socio-economic conditions, income levels, and risk profiles of consumers.

The ubiquitous reach of mobile phones, better understanding of consumer preferences, increasing availability of internet, advent of digital technology, and access of user data, provides an opportunity to significantly reduce financial exclusion. Market innovation in last half a decade and successful examples around the world of non-traditional players providing financial services testifies this fact.[3]

Countries like Kenya, Pakistan, Mexico, Peru and Uganda have immensely benefitted from increased innovation and competition in financial services in the recent past. For instance, after putting in place measures to deliver interoperability, Tanzania saw a 3.5 times increase in the value of off-network transactions.[4] Pakistan allowed full account-to-account interoperability between operators and schemes in March 2014, by allowing participation of mobile money operators in its retail payments platform (1lInk switch). As a result, the value of Interbank Funds Transfer (mobile money-to-bank transfers and vice versa) more than tripled between October 2014 and September 2015, from PKR 2.4bn to PKR 7.8bn.[5]

Such tectonic shifts in global financial services industry have not been ignored at home and forced a rethink in regulatory approach in India. The government has realised the potential of digital financial services and is working towards putting in place optimal policy and regulatory framework. Table 6.1 sets out key initiatives of the government to promote digital financial services.

Table 6.1: Initiatives by Government of India to Promote Digital Financial Services	
1)	Increasing competition by introducing specialised service providers[6], such as prepaid Payment Instrument Instruments (PPIs)[7], payments banks[8], peer to peer lending platforms[9], and digital bill payment facilitators.
2)	Harmonising norms for acquiring customers in different sectors[10]
3)	Promoting high-class technology for facilitating convenient, secure and swift digital payments at low cost[11]
4)	Reduction in cost of digital payments[12]

However, such transition is expected to be challenging and complicated owing to: vested interests of incumbents in light of investments already made; difficulty to shift from an entity-based to risk-based regulatory approach; and prevailing conflicts of interests; and potential adverse impact of artificial regulatory distortions. There is high risk of regulatory framework remaining sub-optimal, despite best intentions, and imposing avoidable costs on service providers and eventually consumers. This might constrain financial service providers from reaching out to the bottom of pyramid, increase the cost of access and usage of financial services, or deprive consumers from genuinely benefiting from such services.

This chapter examines regulation of digital financial services in India from the perspective of new service providers, and highlights distortions to competition in the PPI and payments bank segments. In addition, emerging competition concerns in new segments, such as peer to peer lending and digital bill payments are pointed out. Potential adverse impact of price regulation is also mentioned. The chapter concludes with possible suggestions to improve the regulation and achieve level playing field in Department of Financial Services (DFS) sector.

Regulation of PPI Instruments

PPIs facilitate purchase of goods and services, including funds transfer, against the value stored on such instruments.[13] Three categories of PPIs can be issued in India:

Closed system payment instruments: issued by an entity for facilitating the purchase of goods and services from that entity only and do not permit cash withdrawal

Semi-closed system payment instruments: can be used for purchase of goods and services, including financial services, remittance facilities, etc., at a group of clearly identified merchant locations/establishments which have a specific contract with the issuer (or contract through a payment aggregator/payment gateway) to accept the PPIs as payment instruments. These instruments do not permit cash withdrawal.

Open system payment instruments: can be used at any merchant for purchase of goods and services, including financial services, remittance facilities, etc. Cash withdrawal at ATMs/Point of Sale (PoS)/Business Correspondents (BCs) can also be facilitated. Funds transfer from such PPIs is also permitted to other open system PPIs, debit cards and credit cards as per the limits.

The regulatory framework of PPIs appears to impose unreasonable restrictions which may discourage competition and level playing field in the sector. Such restrictions include:

High entry barriers: All existing non-bank PPI issuers are required to have a minimum positive net-worth requirement of ₹15 crore as on March 31, 2020. Thereafter, the minimum positive net-worth of ₹15 crore is required to be maintained at all times. It should be noted that previously, banks and non-banking financial companies (NBFCs) were required to comply with capital adequacy requirements as prescribed by the Reserve Bank of India (RBI) from time to time. All other persons, seeking were required to have a minimum paid-up capital of ₹5 crore and minimum positive net worth of ₹1 crore at all the times. The substantial increase in net worth requirement may adversely impact smaller players currently operating in the market, who might not be in a position to comply with the revised requirements by March 2020. In addition, the revised requirements may dissuade smaller interested players to enter the market.

Doing away with proportionate regulations: Semi-closed PPIs with outstanding amount capped at ₹10,000 can be issued by banks and non-banks by accepting minimum details of the PPI holder. Such PPIs are required to be converted into fully Know Your Customer (KYC) compliant semi-closed PPIs within a period of 12 months from the date of issue of PPI, failing which no further credit shall be allowed in such PPIs. Such fully KYC compliant semi-closed PPIs are eligible to keep amount outstanding up to ₹100,000. However, the conduct of full KYC requires collection of proof of identity and address from the customer or conducting KYC verification through e-KYC service of UIDAI.[14]

Conducting full KYC can be expensive when compared with collecting minimum details of PPI holder, and may force PPI issuers to rethink their business strategy. In addition, some consumers might not be interested in obtaining enhanced benefits of full KYC and thus not willing to part with sensitive information. The revised requirements do away with risk based KYC and thus takes an one-size-fits-all approach.

Preference to banks for issuance of open system payment instruments by banks: While banks and non-banks can issue closed and semi-closed payment instruments, only banks are allowed to issue open system payment instruments

Preference to banks in case of PPIs issued under co-branding arrangements: Interested entities are allowed to issue PPIs under co-branding arrangements. In case of co-branding arrangements between bank and non-bank entity, the bank shall be the PPI issuer. The role of the non-bank entity shall be limited to marketing/distribution of the PPIs or providing access to the PPI holder to the services that are offered.

Preference to banks in case of cross-border outward transactions: Such transactions can be conducted only through KYC compliant reloadable semi-closed and open system PPIs issued by banks having authorised dealer – I licence.

Escrow requirement: Non-bank PPI issuers are required to maintain their outstanding balance in an escrow account with any scheduled commercial bank. This accords universal banks, which compete with non-bank PPI issuers, additional leverage in negotiating terms of engagement with the latter.

Utilisation of unused/outstanding balance: Non-bank PPI issuers cannot transfer the outstanding balance to their profit and loss account for at least three years from the expiry date of PPI. In case the PPI holder approaches the PPI issuer for refund of such amount, at any time after the expiry date of PPI, then the same shall be paid to the PPI holder in a bank account. However, banks issuing PPIs are required to credit to the Depositor Education and Awareness Fund (DEAF), any such amount which has remained unclaimed for a period of more than ten years.

Customer liability in case unauthorised/fraudulent transactions involving PPIs: The RBI has issued a detailed circular related to limitation of customer liability in case of unauthorised/ fraudulent transactions.[15] Further, the banking ombudsman facility is available to the aggrieved consumers. However, the aforementioned circular and the banking ombudsman facility are only applicable to customers of bank PPIs and not to non-bank PPIs. There is no non-bank ombudsman.

It can be deduced from the above that despite operating under similar environment and possessing similar risks, PPIs may subject to different regulatory requirements only because of ownership by different types of entities. As a result, similarly placed entities are being treated differently. In addition, PPIs of different nature and possessing different risks (with different limits on outstanding balance) are subject to similar KYC requirements. Consequently, differently placed entities are treated similarly. This not only creates uneven playing field but also adversely impacts interests of consumers, as holders of PPIs.

Access to Critical Payments Platforms

The RBI has recently decided to allow interoperability[16] in digital payments in phases. In the first phase (January-June 2018), PPI issuers are required to make all KYC-compliant PPIs issued in the form of wallets interoperable amongst themselves through Unified Payments Interface (UPI) platform. In subsequent phases, interoperability shall be enabled between wallets and bank accounts through UPI.

UPI is one of the payment platforms being operated by the National Payments Corporation of India (NPCI), a non-profit company majority owned by banks. It operates other payments systems, such as Immediate Payment Service (IMPS), *Aadhaar*-Enabled Payment System (AEPS) and Bharat Bill Payment System (BBPS). While the RBI has recently announced a roadmap for interoperability between PPIs operated by banks and non-banks through UPI platform, the role of non-bank service provider's remains limited in other platforms. This is indicated in Table 6.2:

Table 6.2: Payments Systems and their Interface with Non-banks

Service	Summary	Role of non-banks
IMPS[17]	Instant, 24X7, electronic fund transfer service through mobile phones, using mobile money identifier (issued by bank); bank account number and IFS code; or *Aadhaar* number (seeded in bank account), for: • Inter-bank fund transfer • Transfer from bank account to PPI of non-bank • Transfer from PPI of non-bank to bank account Interesting to note is that the steering committee of IMPS comprises 18 banks and does not have non-bank representation	• Act as BCs to facilitate inter-bank fund transfer • Enable transactions with bank as counterparty • *Transactions inter-se non-bank PPIs not allowed (lack of interoperability)*
AEPS[18]	Interoperable financial inclusion [government to person (G2P) transfer] and related transactions to any bank account using the *Aadhaar* authentication. Other facilities include balance enquiry, cash deposit/ withdrawal and inter-bank transfer (through *Aadhaar* number linked to bank account). This is facilitated through unique issuer identification	• Engage in authorisation, best finger detection, e-KYC and demographic authentication services • Act as BCs to facilitate withdrawal and transfer • *Government entitlements not allowed to be transferred in non-bank PPIs*

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Service	Summary	Role of non-banks
	number (to identify bank with which *Aadhaar* number is mapped); *Aadhaar* number and fingerprint. The G2P transactions are enabled through Aadhaar Payment Bridge System (APBS) wherein settlement happens through Real-Time Gross Settlement (RTGS) system. However, APBS is not 24*7 in nature.[19] Interesting to note is that banks are allowed to issue dedicated PPIs to government organisations for onward issuance to beneficiaries of government sponsored schemes, but non-banks are not allowed to do so. Other services including the transfers between *Aadhaar*-enabled bank accounts are facilitated through AEPS. Interesting to note is that the steering committee of AEPS is made up of banks only, without any non-bank representation.	• *Transfers between banks and non-bank PPIs not allowed*
BBPS[20]	Tiered structure for operating the bill payment system. NPCI will function as the authorised Bharat Bill Payment Central Unit (BBPCU), which will be responsible for setting business standards, rules and procedures for technical and business requirements for all the participants. It will also undertake clearing and settlement activities related to transactions routed through BBPS.	• While non-banks can act as payment operating unit and facilitate bill payments, the settlement will be made through the RBI's RTGS payment system. Only banks have access to RTGS. Thus, non-banks will need a sponsor bank to open bank accounts and enable settlement • However, the eligibility criteria for acting as payment operating unit is net worth of at least ₹100 crore as per the last audited balance sheet and the same has to be maintained at all times. • *Settlement between non-banks is not allowed (without intermediary sponsor bank)*

It is clear that non-banks' access to payments systems in India is limited and indirect, and thus are at a disadvantage while competing with banks. It has also been argued that banks are indirectly controlling NPCI and thus blocking direct access of payments systems to non-banks.[21] However, restrictions on non-banks are not placed only by payments platforms run by NPCI, but also the platforms run by RBI itself. RBI is the operator of RTGS system in which non-banks are not even allowed indirect access (i.e. access through banks). As a result, non-banks are required to rely on NPCI which has no competition in the sector. Countries, like UK and Australia are opening up to the possibility of allowing access to non-banks to critical platforms like RTGS.

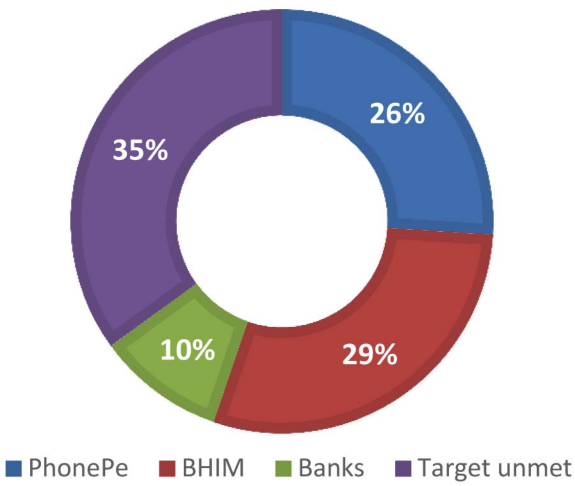
Those in favour of restricting operations and access to payments systems of non-banks argue that they suffer from weak customer verification processes.[22] Non-bank PPIs can be subject to illicit activity such as money laundering and terrorist financing and fraud resulting in consumer protection concerns. It has also been argued that non-bank PPIs do not adopt necessary controls and risk mitigating measures like banks do.[23]

RBI Deputy Governor R. Gandhi recently argued, "*free entry may be appropriate for any other segment of goods and services, not for 'banking'. Every other good or service is primarily a one-off transaction, whereas banking is a continuing relationship, and therefore 'fit and proper' criterion is of utmost importance and consequently, 'free entry' based on tick-box exercise is totally anti public safety*."[24] It has also been argued that contribution of non-bank PPIs to further the cause of financial inclusion, including access to formal finance, has been doubtful.[25]

However, the proponents of greater access and freedom to non-bank PPIs point out that competition will encourage innovation and growth in the digital financial services sector.[26] Experts suggest that concerns with respect to weak customer verification might be overstated[27] and that mobile network operators are better placed to meet the challenges of DFS, and are essential to achieve digital financial inclusion.[28]

This is evident from the fact that transactions between banks and non-banks comprise substantial proportion of transactions on payments systems.[29] Moreover, users of non-bank PPIs exceed those of bank PPIs by several times. For instance, the target for UPI for first quarter of financial year 2017-18 was 40 million of which 26 million was achieved. 40 percent of UPI payments were driven by a non-bank, PhonPe, despite having indirect access only. This is represented in Figure 6.1.

Figure 6.1: Key Drivers of UPI Payments (Q1 2017-18)



Competition incentivises providers to ensure that products they provide are of high quality to retain consumers, helping adopters of products remain active users. It encourages providers to introduce new and innovative mobile financial service products and services, which promote increased uptake and use of financial services among the poor. Where consumers have increased options for products and services, service quality will be promoted as firms compete on service for fear of consumers switching providers.[30]

Table 6.3: Entry and Operating Conditions on Peer-to-Peer Lending Platforms
Even in markets wherein there is no direct competition between banks and non-banks, the latter are expected to face significant entry and operating restrictions. For instance: ● The eligibility criteria for non-banks to operate peer to peer lending platforms is net owned fund of ₹2.5 crore, which is expected to discourage several interested players. ● There are caps on exposures of lenders and amounts borrowed by borrowers. For instance, exposure of a single lender to the same borrower, across all peer to peer lending platforms cannot exceed ₹50,000. This is expected to reduce the attractiveness of the platform and the design of products which lenders can offer. ● All fund transfers are required to be through and from bank accounts and cash transaction is strictly prohibited. This restriction excludes

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the possibility of non-bank PPIs from attaching with such platforms and thus provides an unfair advantage to banks.

- Such platforms are required to maintain two escrow accounts, one for funds received, and other for collections from borrowers. Both such escrow accounts are required to mandatorily promoted by banks. This restriction is expected to constrain innovation in fund transfer and restrict the income generating avenues of such platforms.

Source: Peer to Peer Lending Platform (Reserve Bank) Directions 2017 issued by RBI

Regulation of Payments Banks *vis-à-vis* Universal Banks

It is not that competition concerns are only present in treatment of banks *vis-à-vis* non-banks in DFS sector. Within the banking sector itself, there are signs of differential treatment between incumbent universal and payments banks.

Payments banks are latest set of differential banks in Indian financial sector as they are authorised to provide only savings and payments services to its consumers and not credit. They are expected to leverage technology and reach out to the last mile consumers for facilitating digital payments at affordable rates. Table 6.4 provides an overview of activities payments banks are allowed to engage in.

Table 6.4: Key Features of Payments Banks
Can offer only savings, current and payments services, and not credit
Cannot offer recurring and fixed deposit services
End of day balance limited on customer accounts is ₹100,000
Can act as business correspondents for universal banks
Can operate through physical access points and controlling offices

As payments banks are not expected to be engaged in all the functions of universal banks, regulations should ideally be proportional to activities they pursue and perhaps not as stringent as for payments banks. The regulations for payments banks have gone through several rounds of revisions. The RBI has consulted several stakeholders, including civil society, to improve and refine regulations. A review of payments banks regulations points to potentially competition distortionary provisions, which impose avoidable burden on payments banks. The same are listed and analysed in Table 6.5.

Table 6.5: Competition Distortionary Regulations for Payments Banks
1. **Capital adequacy ratio**: The payments banks are required to maintain a capital adequacy ratio of 15 percent. This is higher than the ratio prescribed for universal banks. The payments banks are not expected to engage in risky lending and investment activities, and scope of revenue generation is also limited. Thus, the high capital requirement could unfairly impose avoidable costs on payments banks, limit their reach, and thus undermine consumer interests.
2. **Product approval**: At the time of submitting application for licence, payments banks are required to submit to RBI a list of financial products they intend to offer, with a clear description. Any new product proposed to be introduced thereafter is required to be intimated to RBI for information. The operating guidelines provide that the RBI may place suitable restrictions on the design, functioning, or other features of the product including discontinuing the product. Such conditions are not imposed on universal banks, who often offer complicated products to consumers. The scope for product innovation is anyways statutorily limited for payments banks (they cannot offer recurring and fixed deposit products). Unnecessary restrictions should not be further put on operational freedom. The discretionary powers of RBI in case of payments banks need to be cautiously used, and their abuse should be prevented, and the same could result in restricting innovation and harming consumer interest.
3. **Access points:** The annual plans for opening of physical access points by the payments banks for the initial five years would need prior approval of RBI. There is no such prior requirement on universal banks to get approval from RBI about their branch location/location of BCs. Such differential treatment may impose unreasonable costs on payments banks, specifically in their initial years of operation, in which they would like to break-even and stabilise.
4. **Internet connectivity:** BCs of payments banks cannot undertake any offline transactions. Consequently, BCs cannot undertake transactions if there is no internet connectivity. While real-time internet connection is important for instant payments confirmation, and clear segregation of customer funds, significant population in India has no access to internet connection. Inability of payments banks BCs to operate in internet dark zones could prevent significant population from benefitting from their services. Such restriction is not placed on universal banks hence limiting the operational freedom and ability to compete for payments banks.
5. **Payment banks as BCs**: In cases where a payments bank is acting as the BC for a bank, the BC engaged by the payments bank is not allowed to open deposit accounts for the partner bank for which the payment bank acts as the BC or undertake KYC documentation for that bank.

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Such restrictions are not applicable on other BCs of universal banks. Operational restrictions limit innovation and prevent the service provider offer customised and low cost services, which should be avoided.
6. **Management of excess deposits:** There is no maximum cap on deposits with universal banks, however, cap exists on end of day balance of payments banks customers. The operating guidelines mention that payments banks will have to make arrangements with other universal banks to manage amounts in excess of ₹100,000, subject to customer consent.   Arrangements with other universal banks are expensive and require repetition of KYC exercise. The customers will have to eventually bear such costs. In the absence of customer consent, the customers will have to restrict their end of day deposit balance to ₹100,000.In the alternative, payments banks could have been allowed to maintain a pool account with themselves with a cap on total deposit equivalent to specific percentage of maximum allowable deposits, to manage excess deposits in individual customer accounts. This could have reduced the costs and efforts on part of consumers.

The issues discussed above could potentially limit the ability of payments banks to compete with universal banks, on savings and payments front. The avoidable costs imposed on payments banks could limit their reach, restrict innovation and prevent consumers from benefitting from developments in the digital financial space.

The Case for Proportionate Regulation

Differential treatment is not *per se* competition distortionary. However, when similarly placed players are dissimilarly treated and dissimilarly placed players are treated similarly, presumption of distortion of competition might be made. As indicated earlier, non-banks and payments banks are subject to stringent regulations and limitations, thus putting them at a disadvantageous position, when they compete with universal banks.

This is perhaps a result of entity based regulation in the financial sector, which treats banks as sacred and special entities different from all other service providers. For instance, the Payments and Settlement Systems Act, 2007, envisages clearing house only for banks and no other kinds of entities, despite the fact that every entity engaging in payments needs to have direct access to clearing house.[31]

There is a need to shift from entity based regulation to activity/risk-based regulation, i.e. moving away from regulating banks as an entity to separate regulation of banking activities of savings, payments and credit, depending on risks and consumer concerns involved in each of these activities. The regulation should be proportional to the extent of activities/risks carried out by any entity, irrespective of being a bank or non-bank. Such regulatory shift will promote competition, innovation and efficiency in the market and will reduce the avoidable costs often imposed on financial service providers, and often the consumers. The Monetary Authority of Singapore has already signalled a shift to activity based regulatory framework for payments.[32] The Government of Canada has issued a framework for risk-based regulation of retail payments sector, as indicated in Table 6.6.

Table 6.6: Approach to Regulation of Retail Payments

Key risks	Key objectives	Key principles
Operational risk: Inadequate or failed internal processes, system failures, human errors, or external events that may disrupt payment services **Financial risk**: Failure to ensure sufficient liquidity to meet payment obligations and failure to properly safeguard end-user funds **Market conduct risk**: Behaviour of payment service providers with respect to end users that may lead to harm**Efficiency risk**: Barriers to entry, abuse of market power, limiting competition and innovation **Money laundering and terrorist financing risk**: Use by criminals to disguise the origin of funds derived from criminal activity or use to finance terrorist activities	**Safety and soundness**: Appropriate measurement, management and control of risks **Efficiency**: Effectiveness in clearance and settlement processes by ensuring competitive market conditions and removing barriers to entry to drive cost reductions and innovation **User interests**: Convenience, ease of use, price, safety, privacy, effective redress mechanisms, disclosure, risks and performance standards	**Necessity**: Oversight should address risks that can lead to significant harm to end users **Proportionality**: Level of oversight should be commensurate with the level of risk posed by a payment activity **Consistency**: Similar risks should be subject to a similar level of oversight, irrespective of the type of entity or the technology **Effectiveness**: Clear, accessible and easily adaptable requirements. Entity that poses the risk should be responsible for managing it. Regulator should have adequate enforcement capabilities

Source: Review of retail payments oversight framework in Canada[33]

Existing completion scenario could also be witnessed as a tussle between old and the new, wherein the incumbents have made significant investments in infrastructure and now want to exclusively enjoy the fruits. On the other hand, the challengers want to use existing infrastructure to reach out to consumers, both new and old, efficiently and effectively. Such struggle is not unique to India neither the financial sector.

For instance, in UK, the new breed of technology savvy banks is called 'challenger banks'[34], which are using asset light technology heavy models to provide customised services. The airline industry in India has faced issues of incumbents challenging regulatory reforms intended to ease entry and operation conditions.[35] The taxi service providers around the world are arguing for stringent regulations of taxi aggregators.[36]

Within the financial sector, several experts,[37] including the Financial Sector Legislative Reform Commission (FSLRC) Working Group on Payments have called for regulatory reforms, including a level playing field within the payments industry and between bank and non-bank players.[38]

Internationally, the value addition by non-banks in digital financial sector through greater competition, innovation and enhanced user interface is being recognised, and regulatory barriers to competition are being taken down. For instance, The Bank of England recently decided to extend direct excess to RTGS to non-bank payment service providers, over time.[39]

The European Payment Services Directive 2 allows innovative players to compete for digital payments services alongside banks and other traditional providers.[40] Mexico has granted non-banks access to Mexican real time gross settlement system (SPEI).[41]

The recently issued Singapore Payments Roadmap envisages expanding access to the payments systems and facilitating private sector innovations and improvements.[42] To ensure arm length and professional regulation of the financial sector, UK has an independent and professionally run Payments System Regulator, a subsidiary of Financial Conduct Authority.[43] The Monetary Authority of Singapore recently issued a consultation paper on activity based payments framework and establishment of a National Payments Council.[44] Such independent regulators are increasingly adopting a more broad-based stakeholder consultation approach, which involves non-banking activities.

The RBI has also indicated a move in this direction. The customer acquisition process is being streamlined across sectors as the electronic know your customer process becomes acceptable in telecom, PPI and banking sectors.[45] However, inconsistent signals emerging from the regulatory agencies are concerning. For instance, the RBI Vision Document on Payments and Settlement Systems in India aims to improve accessibility, interoperability in digital payments and set up Payments System Advisory Council (PSAC) comprising industry and government representatives/experts to strengthen the consultative process in the sector.[46]

However, the recently released RBI Annual Report 2016-17 notes that PSAC was to be constituted as an advisory body to the Board for Regulation and Supervision of Payment and Settlement Systems (BPSS). Since the Payments Regulatory Board (PRB) is envisaged to replace the BPSS as per the Finance Bill, 2017, no further action is being taken on the formation of PSAC.[47] It needs to be realised that the roles of PRB and PSAC are different and important in their own right. The PRB, despite having representation from outside RBI, can substantially benefit from expert structured consultation process, constituted and recognised by the regulator. Thus, the idea of PSAC needs to be revived.

It is necessary to avoid such conflicting signals and quickly put good ideas to action. The regulatory objective should be to promote interests of consumers. This can be done by promoting optimal competition, through adopting proportionate regulation.

Adopting Risk-based Regulation

Tools such as regulatory impact assessment (RIA) and regulatory sandbox can help in assessing the risks which innovation and non-banks carry, and put in place appropriate risk based regulatory framework. While RIA aims to estimate costs and benefits of different regulatory alternatives of on stakeholders, regulatory sandboxes are tailored regulatory environments or 'safe zones' for conducting small scale, live tests of new fintech products and delivery models. These are evidence-based tools for fostering innovation while allowing regulators to remain vigilant to consumer protection and financial stability risks.[48] Countries are experimenting with different variants of regulatory sandbox, including cohort based live testing, statutory waiver framework, hybrid sandbox, etc. For details, see Table 6.7.

Experts have suggested creation of regulatory sandboxes in Indian context as well, to allow regulators to facilitate small-scale tests by nancial technology rms. In such a carefully controlled environment, certain regulations may be temporarily relaxed, and consumers can be allowed to participate in new products. The goal should be to collect empirical evidence which can ultimately lead to better policy solutions, whilst simultaneously evaluating the risk of any new product or technology. Such an institution can provide a structured avenue for regulators to engage with the nancial supply-side, develop

Table 6.7: Models of Regulatory Sandbox
Cohort-based live testing programme (UK FCA): Regulatory relief is tailored to the unique risks presented by the product in testing. Applicants are evaluated based on eligibility criteria, including whether the product constitutes a 'genuine innovation', offers a 'consumer benefit', and is ready for testing. Admitted companies then work with the FCA to craft appropriate testing protocols and consumer safeguards. At the end of the test period, participants either 'graduate' to full licensing, or are released from the sandbox without market access **Statutory waiver framework (Australia)**: Allows companies with a limited number of customers and/or low financial exposure to operate for up to one year without a full licence. **Hybrid Sandbox (Indonesia OJK)**: Tiered registration requirements that provide participating companies up to a year to apply for full licensing. In the interim, the OJK provides informal coaching to participants to help them graduate to full market access. Each approach offers distinct costs and advantages. For example, the cohort-based approach provides a mechanism for broadly publicising and generating interest in the regulatory collaboration process, and provides the sponsoring regulator with concentrated exposure to a broad cross-section of innovative companies. Statutory sandbox frameworks lower regulatory barriers to entry for new firms and eliminate regulatory discretion to "pick winners." At the same time, however, statutory waivers reduce the need for collaboration with regulators and therefore eliminate some of the learning benefits of cohort-based sandbox.
Source: Duff, *Modernizing Digital Financial Regulation,* 2017

innovation-enabling regulations, and holds promise to facilitate the delivery of relevant, customised, and low-cost nancial products to Indian customers.[49]

However, structures such as innovation hubs and sandboxes need to be considered carefully. The success of these structures is dependent on a clear regulatory purpose, open and transparent participation criteria, and measurable success criteria.[50] Further, it has been suggested that with the growing demand of risk based regulation, and the regulators becoming entity and technology neutral, the regulators might not fully understand the risks which new technologies bring with themselves, without appropriate nudges.

Consequently, it has been suggested that regulators must be mandated to focus on fundamentals. In other words, being 'technologically neutral' should not be used as an argument that excuses regulators from the need to understand the impact of new technologies on processes (e.g. biometric identification for payments) or business models (e.g. alternative data credit scoring). Instead 'technological neutrality' should mean that regulators do not seek to 'regulate' technological innovations, but instead focus on the financial processes that technology enables and that ought to be subject to regulation (e.g. it is not automated investment advice that is the problem, but the risk of fraud or improper advice).[51]

Table 6.8: Progressive Approach to 'Smart Regulation'
1. A testing and piloting environment 2. A regulatory sandbox, which widens the scope of testing and piloting, is transparent, and removes the regulators' disincentive to grant dispensations (and depending on the ecosystem and the importance of cross-border recognition the sandbox may take the form of a sandbox umbrella) 3. A restricted licencing/special charter scheme, under which innovative firms can further develop their client base and financial and operational resources 4. When size and income permits, the move to operating under a full licence
Source: Zetzsche et al, *Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation,* EBI Working Paper Series - 11,2017

In addition, with the growth in innovative service providers, the need for regulatory cooperation will increase. Traditional banking regulators will need to cooperate with other authorities responsible for oversight of regulatory functions related to fintech, such as data protection authorities, competition authorities, and financial intelligence units.[52]

In order to monitor activities of regulated activities in real time and ensuring that the cost of monitoring and compliance remains under control, technology can play an important role. For instance, an automated complaints platform has the potential to inform regulators about the efficiency of grievance redress mechanisms adopted by service providers.[53] Such information can aid in determining the nature of complaints/ issues faced by consumers, and consequently risks posed by services.

Use of technology in regulation can help capturing and analysing data, building an evidence base for informed and timely decision-making, targeted supervision, and to decode innovation and understand consumers' experience and needs. Such mechanism is crucial for risk-based approaches to both regulation and supervision.

It is time that regulatory agencies in India realise the importance of risk based regulation to optimally regulate the innovation in DFS sector, and start informing themselves about different models of risk based regulation to design an approach suitable for Indian context.

Endnotes

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CHAPTER 7

The Role of Competition Policy in Promoting Sustainable Development Goals[1]

Introduction

The eight Millennium Development Goals (MDGs), which were adopted in 2000, have now been replaced by fairly ambitious 17 Sustainable Development Goals (SDGs), to be achieved by 2030. There has been progress made by developing countries towards the achievement of the MDGs, especially against poverty, hunger, and disease. However, there are also significant challenges in attainment of the goals, as the progress is highly variable across goals, countries, and regions. Some of the MDGs have not been achieved, including promises of official development assistance by rich countries, which have not been kept (Sachs, 2012). Besides, maternal health and sanitation objectives were mostly not realised.

With the recent adoption of the SDGs, it is critical to ensure that all of the useful tools that can be used towards their attainment be fully understood. While general economic policies, which include fiscal and monetary policies, are expected to be pivotal in the attainment of the SDGs, they should also be complemented by other policies that are relevant for the attainment of the SDGs. It is within this context that this short paper is being prepared to assess the extent to which competition policy can also be used as a tool for the attainment of the SDGs.

In general, competition policy refers to a package of reforms, measures and tools that government can put in place to have an impact on competition in the local market. The influence on competition in the market can be achieved by directly affecting the behaviour of enterprises, the structure of industry or both. The tools to achieve this could be a set of government pronouncements, laws and regulations that enhance competition or competitive outcomes in the markets. Hence, competition policies can be very broad, resulting in their interaction with several other government policies, objectives and programmes. This interaction can imply that competition policy can also be used as means towards attainment of other government objectives. It is within this context that the relationship between competition policy and SDGs is being assessed.

The extent to which a competition policy can be used to achieve SDGs can be understood from the interaction between competition and other select government policies that also have a bearing on competition. Such policies include the following:

International Trade Policy

The adoption of a competition policy in a country could also be preceded by an audit of the country's international trade policy to check whether it is in line with competition policy objectives (principles of fair competition). A restrictive trade policy restricts competition in the market and can easily create dominant firms and the manipulation of the market by such dominant domestic firms. Trade liberalisation also results in an influx of goods into the economy, which could enhance competition, and be the avenue through which cartelised products could also find their way into the economy. Thus, a national competition policy (forming the basis of a Competition Act) can ensure that international trade that maintains a balance between an open market and avoidance of market distortions exists.

Industrial Policy

There is also a close relationship between competition and industrial policies. First, industrial policies are used to strike a balance between competition in the market and domestic industry protection (especially of sectors that are import to developing/least developed countries). Second, industrial policies generally determine the contestability of a market, as licencing conditions, sector regulation regimes and other compliance mechanisms are also part of industrial policies. Third, industrial policies can also be used to promote or deter competition in some sectors, through provision of specific support and incentives by the government, which may or may not be extended to all players fairly and transparently. Thus, an effective competition policy can be used for removal of obstacles and attainment of a predictable legal and regulatory environment that reduces arbitrary decision-making, thereby instilling transparency in the system.

Investment Policy

An investment policy has a direct bearing on competition prevailing in the economy as it influences the number of players in markets. The extent to which foreign investment is promoted or restricted (including through national Investment Promotion Agencies) would also go a long way in determining the nature of competition in the national economies. Specifying areas of domestic industry preference through reserved sectors, limits competition if local investment capacity is constrained, which would also deny opportunities from increased investment. Competition policy can ensure that potential harm to competition would be limited while the countries continue to pursue their public interest objectives.

Intellectual Property Rights Policy

IPRs bestow the holder some legal monopoly over an invented product/ service, which can be easily abused. Moreover, competition policy advocates for the encouragement of entry into sectors where there are monopolies. Thus, ideally IPRs laws should allow for flexibilities which protect the innovator while at the same time, giving room for some action to be taken in the event that there is abuse of such rights. Thus, the extent to which a country's IPRs policy allows for measures against anti-competitive conduct will play a role in shaping the extent to which markets are competitive. Competition policy might result in reforms in the IPRs regime to allow for such flexibilities in case there is a history of abuse of such rights.

While a competition policy can be implemented through other policies and programmes, one of the most critical instruments for attainment of competition objectives is the competition law. This comprises legislations, judicial decisions and regulations specifically aimed at creating institutions for preventing anti-competitive business behaviour – focussing on three issues: regulation of anti-competitive M&As; prohibition of abuse of dominance; and prohibition of anti-competitive agreements among companies.

In many modern competition laws, a fourth element, namely competition advocacy, is also provided as a key function of the competition enforcement agency. Provisions in this section of the competition legislation provide powers to the competition enforcement agency to highlight policy-induced distortions or weaknesses that stifle competition in key markets of the country.

The strength of a competition law mostly lies in that it gives the implementing institutions power to impose fines and penalties for anti-competitive behaviour. A brief description of SDGs might help to properly contextualise the possible means through which competition policy can be useful in their attainment.

Sustainable Development Goals

The Heads of State and Government and High Representatives, meeting at the United Nations Headquarters in New York from September 25-27, 2015 as the Organisation celebrates its 70th anniversary, have decided on new global SDGs. The 17 goals generally build upon the achievements of the MDGs and seek to address some of the areas which could not be achieved by the MDGs due to various challenges. The 17 SDGs, together with select key policy strategies (selected based on the context of the study) for their attainment, can be represented as follows (Figure 7.1):

Figure 7.1: The 17 Sustainable Development Goals

Source: United Nations Department of Economic Affairs[2]

Linking Competition Policy and SDGs

In a debate initiated by CUTS few years ago on 'competition policy and equity',[3] a noted economist, Dr C Rangarajan, asserted that, in a debate between growth and equity, it is not possible for either side to take an extreme position. He stated that sustained high growth might not be possible in developing economies, unless sufficient attention is also paid to equity. Without paying attention to distribution of income and equity, social tensions will rise and could block sustained high growth.

A number of international experts and practitioners who contributed to this debate asserted that the main objective of competition policy and law was to create competitive conditions for efficiency and thereby growth. Despite highlighted by many scholars, especially from developing countries that competition policy should not be applied through a rigid framework (based on economic theory considerations only), but consider specific circumstances and developmental concerns, especially in the 'south'.

This section of the chapter highlights the linkage between competition policy and selected SDGs, focussing on the first nine goals, believing that it is among those 'goals', where this linkage is strong, as explained below:

Goal 1: End poverty in all its forms everywhere

The biggest challenge in the developing world today is to eliminate abject poverty that deprives a large section of their population a dignified life. Obviously, policymakers remain overwhelmingly preoccupied with designing and implementing policy measures to tackle this problem. The approach to empower the poor, provide them with productive employment and increase their access to land, capital etc. may not be successful unless these people linked to the markets that are made to work for the benefit of the poor people.

This would open economic vistas for them, providing them with economic empowerment and freedom that is so crucial for their survival and well-being.[4] Acquiring direct food aid from donors and direct subsidies by government can alleviate poverty. Other measures involve policy interventions to keep prices of basic products, including basic food items like staple food at affordable levels.

In some countries, on an average, about 40-45 percent of income is spent on food expenditure and any policy that can be used to make food less expensive would complement poverty reduction efforts. The rational behaviour of food suppliers across the whole value and supply chain is generally to get more profit, despite the importance of the products that they produce to poor consumers. Moreover, most sub-markets across the whole food and agro-processing value chain mainly are highly concentrated, with limited competition among the players.[5]

The anti-competitive practices in relatively more developed economies generally imply that worse cases would be prevalent in developing economies, especially where competition laws are yet to be developed or with less competition enforcement. Such countries are more attractive for anticompetitive practices because of low probability of getting caught by perpetrators, lack of strong countervailing buyer power and powerful trade associations, whose mandate also include influencing prices.

Thus, one of the biggest threats to the attainment of this first SDG is the impact that anticompetitive practices would have on food prices. High food prices affect the poor more in the short run, as most of the world's poorest people spend more than half their income on food, such that price hikes for cereals and other staples can force them to cut back on the quantity or quality of their food (IFAD, 2011). A World Bank Study also shows that in Africa, many of the key barriers to trade in food staples relate to regulatory and competition issues at elements along the value chain, which also has implications on poverty.[6]

The pursuit of the first SGD goal thus cannot be divorced from the need to ensure that anticompetitive practices and competition distortions in the food sector are addressed.

One of the key strategies that Member States have already identified as critical for the attainment of Goal 1 is: *"Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions"*.

A well-functioning competition regime with sound regulatory mechanisms and competition policy would be a significant investment in poverty reduction activity.

A 2006 UK White Paper[7] emphasised that the fight against poverty cannot be won without good governance and that there is need to help governments and citizens make policies work for the poor. The governance model in the White paper suggests three key elements that are needed to build better governance and state legitimacy: (i) capability; (ii) accountability; and (iii) responsiveness. **Capability** is the extent to which public institutions have the money, the people, the will and the legitimacy to get things done. **Accountability** is the process by which people are able to hold government to account, while **Responsivenes**s is the degree to which the government listens to what people want, and acts on this. An effective competition policy can help achieve these principles – and thereby contribute towards poverty reduction.[8]

Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

Food is a basic necessity but is prone to anti-competitive tendencies, especially affecting its pricing and its availability. How committed are governments to deal with these anti-competitive tendencies in dealing with these problems? In some countries, on average, about 40-45 percent of income is spent on food expenditure and any policy that can be used to make food less expensive would complement poverty reduction efforts.

There are a lot of competition distortions that can appear at different stages in the agriculture supply and value chains that can threaten the attainment of this goal. At the input supply stage, the conduct of seed and fertiliser suppliers, in terms of supply terms and pricing are often characterised by anti-competitive practices, which balloon the input prices and compromise affordability by farmers.

Seed supply markets where varieties are produced under intensive research technology by multinational companies have also seen excessive pricing and unfair buying conditions being imposed due to abuse of IPRs. There is anecdotal evidence also to show that regulated private sector participation in the seeds market in some countries like India (Bihar state)[9] have benefitted farmers by providing good quality and affordable seeds.

Agriculture markets in many least developed countries (LDCs) in West African countries are controlled by public or private monopolies. According to research undertaken by CUTS in seven countries of the Economic Community of West African States (ECOWAS), farmers interacting with these monopolies/agents complain about non-transparent pricing and other exploitative practices.[10]

Fertiliser supply is also very prone to anti-competitive conduct comprising both policy induced and behavioural. In Zambia, the subsidised fertiliser distribution system has seen mostly two fertiliser firms winning the bids and with time these firms are alleged to have started bid rigging (CUTS, 2015).

Effective agricultural sector policies, which facilitates greater (and regulated) engagement of private sector in 'inputs' markets like fertiliser and seeds, has the potential to make good quality inputs available at lower costs to farmers, especially benefitting small farmers. In many developing countries and LDCs, monopolies (public and private) seem to control agriculture markets, which make it difficult for small farmers to derive benefits while selling their produce in these markets.

The two critical strategies identified in pursuit of this goal are: 'to correct and prevent trade restrictions and distortions in world agricultural markets' and 'implement measures to ensure the proper functioning of food commodity markets'. This makes competition policy a very useful tool in the attainment of Goal 2 of the SGDs.

Goal 3: Ensure healthy lives and promote well-being for all at all ages

One of the mechanisms towards ensuring healthy lives and well-being is the elimination of hunger and poverty, which are the second and first SGD goals respectively. In this section, this paper focusses on how a healthy competition regime can be instrumental in the attainment of healthy lives and well-being. This is done by looking at access to healthcare services in developing countries and medicines.

Kanavos and Wouters (2014) show that in most developed countries, various stakeholders in the supply chain are regulated extensively to improve the affordability and availability of medicines as well as maintain levels of service. However, this is not true for many low and middle-income countries, where the distribution chain is neither regulated nor subjected to any formal oversight. This scenario makes the market vulnerable to abuse by the suppliers, which also contributes to problems of availability and affordability of medicines.

Further, 'gaps' in regulatory framework in both healthcare services and pharmaceutical markets are common. Such weaknesses in the regulatory framework and institutions (in India, this is further complicated by a federal structure) seem to have contributed towards 'opportunistic behaviour' among firms in both these markets.[11]

CUTS study based on evidence gathered in Assam and Chhattisgarh states in India established that private healthcare remains unregulated and is prone to malpractices – practice of cuts/commissions available to doctors for referring patients to diagnostic/pathological tests is one of them. Hence, there were coordinated vertical agreements between doctors, on one hand, and pharmaceutical companies and diagnostic testing centres, on the other (CUTS, 2011).

CUTS undertook in India in 2006,[12] highlighted the possibility of using the national competition regime to deal with anti-competitive tendencies and market distortions in the pharmaceutical sector in India. The key strategies for this goal are to provide affordable essential medicines and vaccines for all by regulating anticompetitive tendencies. Only a competition law can ensure that proper punishment is levied on the perpetrators to make it deterrent.

Goal 4: Ensure inclusive and equitable quality education and promote life-long learning opportunities for all

Given the constant challenges in public schools in many developing countries, the provision of private schools has become a lucrative business. There is intense competition among private schools, which has, however, not resulted in a corresponding decrease in education fees as private sector players compete with each other. Development of private schools' associations generally facilitates collusion on fees, especially if there is no competition law.

Education is more business-oriented than socially-oriented as private education is now a purely commercial market, with support to local communities, using education as a tool to individual health and well-being. In many developing countries, there is no effective regulatory framework to monitor performance of private education providers. This is akin to the situation in private healthcare services. The government's inability to provide good quality educational services provides an opportunity to the private sector to spread their market control.

Collusion among the service providers is one possible reason to reduce school fees, where a group of providers agree on the fees that they will charge – even those institutions which would have charged lower fees would also charge higher fees. Competition law regulation should be invoked to ensure fair competition among providers – allowing fees to come down to affordable levels.

Goal 5: Achieve gender equality and empower all women and girls

Although competition policy is often gender neutral, it can also be used to complement efforts by other policies to promote gender equality. Ensuring easy access for these products to women would also give them an equal opportunity to also participate in other activities which their male counterparts are participating in. Since a competition law help ensure access to products, it can also be a useful tool in the gender equality campaign.

Given limited opportunities availed in menial jobs, there are also critical sectors that are dominated by women, including general retailing and other small and medium-sized enterprise (SME) businesses. The sector is very vulnerable to anticompetitive behaviour as not targeted by competition authorities and their viability heavily depends on whether they get fair prices at source, given that they have to add value and hope for some buyer patronage. Competition enforcement that prioritises the SMEs sector would also go a long way in enhancing women empowerment and ensuring equal business opportunities compared to their male counterparts. Market Queens in Ghana[13]shows how an enabling environment for private sector participation in the agriculture procurement market led to the emergence of socially and economically empowered women.

Goal 6: Ensure availability and sustainable management of water and sanitation for all

Water and sanitation sector as compared to other public utilities lacks any scope for direct competition in the market, and has strong social character of the service due to positive social and negative environmental externalities in consumption (Foster, 1996). Thus, water has traditionally been served by monopolies in most developing countries, most often established through legislation. However, in most economies, services by these monopolies are often characterised by less-than-satisfactory performance, with non-competitive rates, inadequate service offerings or a lack of innovation or readiness to adopt improvements in technology being some of the characteristics (Anderson and Muller, 2012).

Governments have been trying to make affordable water supply through regulating the behaviour of public service providers, including unleashing the provisions of competition laws. Whereas policy instruments are needed to ensure that water is produced efficiently and at affordable rates, one of the key strategies making water and sanitation available to all is to make the provision free from anti-competitive practices by public and private sector suppliers.

Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all

The energy sector is generally regarded as a very critical sector of the economy, with heavy public-sector involvement, hence normally not very open to competition. Being a large sector, where some energy sources are actually more in private sector hands than public so it is also not immune to anti-competitive practices. Energy supplying companies often engage in vertical mergers which foreclose market entry by new energy suppliers who would otherwise help increase energy security by diversifying energy sources.

Abuse of dominance (monopolisation) is also prevalent, where owners of essential transmission facilities continue to impede entry by limiting use of transmission facilities and charging discriminatory prices to competitors of the network owners upstream or downstream affiliates. Thus, a properly regulated competition law would be a useful tool to ensure that this important SDG goal is attained.

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

This goal encompasses two distinct objectives which might not necessarily happen simultaneously; inclusive and sustainable economic growth on one hand, and employment on the other. Whilst economic growth is generally dependent on fiscal and monetary policies a government can pursue, it can also be shown that competition policy has an important role to play. Competition policy, through the implementation of a competition law, also has a bearing on employment creation. Some firms, whose survival could also be threatened by abusive conduct by dominant firms, could be saved by competition policy, thereby also protecting jobs and employment opportunities.

An effective competition regime can also protect SMEs from coercive practices of larger firms (national and/or MNCs), which goes a long way in ensuring continued existence of the SMEs and their expansion into bigger payers. Thus, just like other goals, competition policy also has a significant role to play in ensuring the attainment of Goal 8 of the SDGs.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

Competition policy can be a useful tool in the attainment of this goal through its impact on sustainable industrialisation and innovation. As already mentioned, competition policy can help remove entry barriers and create a conducive environment for business to thrive to enhance industrialisation. Besides, competition policy also helps ensure that existing firms, which are relatively weaker, are protected from market exit through exclusionary practices by the dominant firms, which would also help in industrial sustainability. Competition in market enterprises will be compelled to re-invest in new production technologies, processes and products. Thus, innovation, in pursuit of the SDG goal, can also be achieved through implementing a sound competition policy framework.

Conclusion

From the above narrative, the following issues in the interface between competition policy and sustainable development (specifically, the SDGs) emerge:

- Competition policy is manifested through a set of government strategies/priorities that has implications on various other government policies, such as industrial, IPR and investment;
- There is a more direct linkage between competition policy and some SDGs – which this paper has highlighted both from literature and through anecdotal evidence;

- The linkage between competition policy and some of the other SDGs is much more indirect – and there is a need for further exploration of these linkages;
- Attention of the international community (bilateral and multilateral donors, international/regional organisations and international businesses) should be more on developing internal capacity and awareness among national stakeholders about benefits of pro-competitive reforms and administrative actions.

Generally, while the whole world is geared to ensuring that the SDGs are attained, competition policy should be seen as playing a complimentary role in the process. However, competition policy can only be effective in the attainment of SDGs if other complimentary issues are also effective, implying that competition policy should not be seen as the most critical pillar for the SGDs' attainment.

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Endnotes

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12 This study report is available at: http://www.cuts-ccier.org/pdf/Project-Report08Sep06.pdf

13 Refer to the Ghana Diagnostic Country Report (prepared under the CREW project of CUTS) at: http://www.cuts-ccier.org/CREW/pdf/Diagnostic_Country_Report-Ghana.pdf

CHAPTER 8

Epilogue

Since the last edition of Competition and Regulation in India (2015), the global development framework has shifted from the MDGs to the SDGs. The SDGs being comparatively more comprehensive, enlist more goals and targets to be achieved. While the MDGs primarily focussed on least developed/ poor countries, SDGs call every country to action, irrespective of its economic stature. This has marked a shift on the perspective of development, widening the focus from sustainability and developing the underdeveloped, to facilitating 'inclusive' growth as well.

While inclusive growth was pursued in the past, innovation, digitisation and evolution of technology have propelled the means to achieve it. Markets are witnessing an unprecedented surge in innovative digital solutions and businesses, resulting in enhanced outreach, as compared to conventional businesses, even to formerly unserved or underserved. Added to this, they have also promoted efficient utilisation of resources and brought the costs of service delivery down.

Considering these aspects, 'digitisation', as a topic, featured at the G20 Ministerial, held in April 2017 at Germany (G20, 2017). Subsequently, the Ministerial concluded with a declaration on 'Shaping up digitisation for an interconnected world'. Understanding the benefits of digitisation, most countries across the globe, have embraced it in their developmental agenda. United Nations (UN) has already stressed on the importance of ICT in achieving SDGs, which has been widely documented.

Further, the rising popularity of digital businesses may be highlighted from the fact that 'global rule making for e-commerce', was aggressively pushed for discussion by a few members at the 11th World Trade Organisation (WTO) Ministerial. The Ministerial, concluded in December 2017 at Buenos Aires, ended without deliberations or any decision on e-commerce, due to resistance by other member countries. However, it does suggest that the digital businesses, will feature extensively on bilateral and multilateral platforms in the coming future.

India, through its ambitious Digital India initiative, is also aspiring to transform itself digitally, in order to realise the true potential of a Digital Economy (DE). Numerous new age digital technology driven businesses have begun operations in India and been embraced by consumers. However, these businesses have also brought with them, a fresh array of challenges, which seems to have substantial impact on consumers, competition as well as themselves.

Digital businesses have found themselves in turmoil due to the existing regulatory framework and/or anti-competitive concerns. Since, a number of these do not fit into conventional regulatory frameworks, it creates an uneven playing field between them and the conventional ones. While this has subjected a number of traditional players to the brink of extinction, a few have already perished. In some sectors, regulatory framework appears to be providing unfair advantage to traditional players. Forging a level playing field between the two is highly challenging, especially for the policymakers. Due to unpreparedness to deal with constant evolution of technology, and disruptive business models, the policymakers are proving to be under-capacitated, and are finding it increasingly difficult to devise optimal regulations for regulating these businesses.

For consumers, a new era of threats has emerged, which encompasses issues such as privacy, data security, cyber threats and attacks, cyber bullying, among many others. It is imperative to resolve these at the cradle, before they become more challenging to be resolved. Thus, understanding the complexity, the government has been commissioning a number of High Level Committees to tackle issues pertaining to various facets of DE. In 2016, a committee was constituted to review issues related to taxi permits in cities and propose taxi policy guidelines. This was envisaged to promote urban mobility, a sector which was disrupted by the digital businesses, namely the taxi aggregators. The Committee released its recommendations in December 2016, which intends to suggest states with a common detailed framework to develop their regulations for taxi operations.

Similarly, another High Level Committee has been formed under the chairmanship of Former Supreme Court Judge, Justice, BN Srikrishna to suggest a legal framework on Data Protection in India. Subsequently, the Committee released a white paper for comments by stakeholders, followed by open house discussions in various cities across India. The Committee is expected to come out with its recommendations soon, which will enable the government to draft appropriate laws on Data Protection in India. Considering the importance of data for stakeholders in the contemporary world, especially the businesses, data protection framework will have substantial impact on the future growth of India.

It is imperative to draft regulations, which are optimised to the interest of consumers, businesses and innovation, while keeping development on track. However, forging an optimal policy framework for digital businesses and associated challenges, would require a major overhaul of the policymaking machinery in India, which include an extensive capacity building of policymakers to tackle the new age issues. The same is required for the competition watchdog, CCI, as these new age businesses have redefined competition issues, introducing factors like cross-subsidisation, data monopolisation, physical vs digital categorisation of businesses, algorithm based pricing, etc.

Emergence of issues related to DE does not mean that conventional regulatory and competition concerns have subsided, especially in sectors like agriculture. This may be attributed to factors such as suboptimal regulation like high entry barriers for private players and price control measures, which have induced competition distortions. Considering these aspects and the main theme as *balancing innovation and competition for sustainable development*, previous chapters of this report have described various challenges across sectors. It features chapters on agriculture market reform, DFS licencing of standard essential patents, role of competition policy on SDGs and emerging jurisprudence on GM cotton seeds.

For the agricultural sector, one aspect discussed is the need to enhance competition, by lowering entry barriers as stipulated in the existing regulatory framework. While this will address the issue of collusion among existing market players, it will benefit the producers in realising better prices for their output. Another aspect suggests the need to adequately protect IPRs for innovations, considering the scenario of GM Cotton Seeds. Price control/setting in case of patent licencing, where the government intervenes to decide the royalty rates for use of patents for manufacturing of certain essential commodities, may prove detrimental to further avenues for innovation. This suggests that while the interest of consumers is important, there is a need to incentivise innovation as well. Price control should be practiced as the last resort, only in case of market failure.

However, the IPR regime should also ensure that a monopoly does not result in abuse, in terms of patent holdups and holdouts. This debate has been discussed in the chapter on patent licensing for SEPs, specific to the electronic manufacturing sector. It is imperative to understand that electronics and ICT are critical to the realisation of SDGs and low cost ICT interventions will be key to inclusive development. This suggests that, the aspect of SDGs and competition should be carefully considered while devising regulations, policies or initiatives, an issue which has been covered in another chapter.

Finally, the aspect of regulatory arbitrages that exist between the new age digital businesses and conventional businesses have also been flagged in a chapter, taking example of the DFS. The chapter suggest prioritising low hanging reforms, such as operational and non-regulatory modifications for immediate implementation, followed by regulatory and legislative reforms in a time bound manner. The sectoral research also gave insights on the common challenges that exist across sectors, some of which have been discussed in the next section.

Common Challenges across Sectors

As it may be deduced from various chapters, every sector has its own distinct challenges, pertaining to competition and regulations. However, some of these challenges, on a macro level, may be clubbed together under similar issues. There might not be similar solutions to these problems, but they provide a good representation of similar issues prevailing in different sectors, and cross-learning between sectors may aid in finding an optimal solution. Some of these challenges have been listed below:

Optimising Regulations to Promote Competition

Regulatory framework plays a crucial role in ensuring healthy competition in a market. However, in the absence of optimal regulations, several distortions to competition may arise, which are comparatively difficult to be rectified through *ex-post* competition enforcement. This was highlighted in the chapter on agriculture market reforms. It narrated how substandard government regulations promote anti-competitive behaviour in the market. The APMC laws of several states have created high entry barriers for traders, which have adversely impacted fair competition, apart from shaping an environment conducive for collusion.

Another example may be drawn from chapter on licencing of patents. Since SEPs are essential in manufacturing of the certain devices, it is necessary for device manufacturers to avail licences. This necessity has led to abuse of dominance by SEP owners, as alleged by some device manufacturers. The allegations state that SEP owners discriminating between manufacturers on providing SEP access and also demanding for exorbitant royalties, thus creating uneven playing field between manufacturers. On the other hand, some manufacturers have been reluctant in paying royalties to SEP owners. On these factors, there have been numerous instances of failed negotiations on SEP licencing. Similarly, in case of GM crops, Monsanto, a leading GM seed producer in the world, has often been accused of abusing its dominance in upstream market of GM seeds. This had resulted in cotton seeds being unaffordable for consumers, i.e. the farmers.

Thus, the regulatory framework should be least restrictive to competition in the market, yet achieving its aim. While this will instil competition in the market, it will provide greater options for both consumers as well as producers, in turn enhancing their welfare. The regulations should be reviewed periodically to scan for clauses which are obsolete or are impacting the sector negatively, or whether there are newer ways of achieving this given objective.

In case of GM patents or SEPs, negotiations in bad faith have resulted in numerous lawsuits being filed and injunctions being granted. This has not just impacted the IP owners in realising justified revenue for their innovations or implementers in paying justified price for licensing of patents, it has negatively impacted consumers as well. Thus, there is a need to forge a framework which creates a platform for negotiations on good faith between the IP owners and the implementers. Also, the regulations should ensure that any abuse of dominance is kept under check and violations are dealt with stringently.

Thus, the regulations must be optimised to cater the interests of innovators, producers and consumers. Optimal regulations may be achieved through some of the available regulatory tools, such as RIA[1] and the Regulatory Sandbox[2] approach. These tools would help in drafting regulations, which will not only be optimal in terms of interest consideration for relevant stakeholders, but will be futuristic and will enable an inclusive development.

Clarity on the Jurisdiction of Competition Commission of India

CCI is an expert body, which was constituted under the Competition Act, 2002, to eliminate practices having adverse effect on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India. CCI has been involved, as an investigator, in a number of patent related cases, such as on SEPs as well as the GM seeds. Considering the mandate of the CCI, it is imperative to understand the scope of CCI intervention in patent licencing agreements, so as to ensure that its role is not counter-productive to national interest.

However, it is the Patents Act which bestows rights on a patent holder to prevent third parties from making, using, offering for sale, selling or importing the products using the said patent without its consent. It also presents a framework for enforcing these rights and provides remedies in cases of abuse of the patent rights. Therefore, it is generally contended that such matters pertaining to patents and licensing need to be dealt under the Patents Act and not under the Competition Act.

The Delhi High Court considering precisely the same issue related with the jurisdiction of the CCI in the case *Telefonaktiebolaget LM Ericsson vs. Competition Commission of India & Another* held that CCI has the jurisdiction to entertain cases related to 'abuse of dominance' and 'anti-competitive agreements' even when the product concerned is patented. The following paragraphs summarise the logic and reasoning given by the Court.

Stress was placed on sections 60 and 62 of the Competition Act, which made it evident, that the intention of the Parliament in enacting the Competition Act was not to curtail or whittle down the full scope of any other law, as the Act would be "*in addition to, and not in derogation of*" any other Act. It was also observed that "*the rationale behind the provisions of sections 21 and 21A of the Competition Act was to ensure that even in cases where CCI or other statutory authorities contemplate passing orders, which may be inconsistent with other statutes, the opinion of the concerned authority is taken into account while passing such orders*." These provisions clearly indicate the Competition Act co-exists with other regulatory statues and can be harmoniously construed in tandem with those statues and as far as possible, statutory orders can be passed which are consistent with the concerned statutory enactments including the Competition Act.

It was further observed, that while the doors are open for the parties to initiate proceedings related with a patented product under the Patents Act, the jurisdiction of the CCI cannot be curtailed and hence any proceeding initiated on such product under the Competition Act is maintainable. Unless until, contrary view is given by the Supreme Court, this may be taken as settled.

Another concern is the tussle between the CCI and the sectoral regulators. The issue recently grabbed the limelight with the entry of Reliance Jio, which sparked a turf war between CCI and the TRAI. With complaints being filed by incumbent market players with TRAI for relief, before approaching CCI, the jurisdictional dispute between the two regulators got highlighted. CCI has suggested that since TRAI is creating an analytical framework on predatory pricing, based on definitions and concepts drawn from the Competition Act, it may lead to confusion between the two bodies.

However, there is a counter argument as well which suggests that competition regulation being *ex post* cannot regulate pure intra sectoral issues such as determination of tariff, which the sector regulator is better poised to decide (George, 2017). Moreover, as an *ex post* and overarching economic regulator, CCI needs to follow a hands-off approach in sectors and should encourage sector regulators to sustain healthy competition through its policies and regulations (George, 2017).

In this regard, the role of CCI and sectoral regulators should be made complimentary. Sectoral regulators are tasked with identifying a problem *ex-ante*, and address potential behavioural issues before the problem arises. Whereas CCI usually comes into the picture *ex-post*, to address any market failure issues. Again, adequate focus and appropriate interpretation of sections 18 (mandating CCI to eliminate anti-competitive practices), 21(1) and 21A(1) (providing scope for cooperation between the market and sectoral regulators), 60 and 62 (mandating an over-riding effect, as well as harmonisation of the competition act with respect of others laws in force) of the Competition Act, 2002 are required in this regard.

Overlaps in the jurisdiction of CCI with several sector regulators such as Petroleum and Natural Gas Regulatory Board (PNGRB), Central Electricity Regulatory Commission (CERC), Copyright Board, Controller of Patents, etc. have been raised in the past (Sharma, 2017). Thus, it is imperative to reduce these overlaps for a smoother functioning of the regulatory framework in India.

To address this issue, in 2011, the Ministry of Corporate Affairs formed a high-powered Committee, which had recommended that the Competition Act be suitably amended to provide for mandatory consultation between CCI and various sectoral regulators in case of jurisdictional/other overlaps. However, amendments were proposed in the Competition Act which have not yet been passed. One opportunity of implementing it is available through the draft Regulatory Reform Bill, which is being discussed by NITI Aayog. The Bill was circulated for inter-Ministerial consultation in September 2016. The provision is expected to enhance cooperation and not competition between the market and sectoral regulators.

Minimising Price Regulations by the Government

Ideally, the government should intervene in the functioning of the market only in case of market failures. Also, the regulations should ensure that there is adequate and fair competition in the market, which may in turn ensure that markets perform optimally. However, this is usually not the case and in certain cases, government intervention is required. This may be attributed to factors such as maturity levels of markets, prevailing monopolies and anti-competitive practices, information asymmetry, user attitudes and conceptions, etc., which lead to distortions in markets.

One such intervention is the price control exercised by government for commodities. Such intervention is usually adopted in order to safeguard consumers or businesses. While, for most of the cases the objectives are noble, price controls by the government may distort competition in the market, dis-incentivise certain business models, stifle innovation and in some cases, go against the interest of consumers or producers in long term. India has witnessed price control by the government in various sectors.

To start with, the government decides the Minimum Support Price (MSP) for procurement of foodgrains from farmers. It was envisaged that minimum prices will hedge farmers from market fluctuations, enhance foodgrain production, and safeguard agriculture as an occupation. However, it has been widely documented that MSP has distorted production pattern and has given an impetus, only to foodgrain cultivation. It has also been accused of not catering to the cost of production for farmers, disturbing the demand-supply equilibrium, degrading soil quality and enhancing food inflation. Moreover, delinking MSP with international prices has in past, impacted imports and exports as well. The issue of MSP also featured in the Union Budget for 2018-19, where it was announced that MSP will be hiked 1.5 times of the cost of cultivation for Kharif season.

Similarly, vide an Order in 2016, the Ministry of Agriculture decided the cap on price of GM Cotton Seed (Bt cotton) at ₹800 for 450 grams. The order also defined the quantum of royalty, the seed manufacturers needed to pay to bio-technology companies like Monsanto, which was set to 10 percent of the Maximum Sale Price (Kohli, 2016). The issue of price regulation for Bt cotton, particularly regulation of trait fee, was fiercely debated in various high courts across the country. However, the ministry defended its action by stating the objective of "provid(ing) for an effective system for fixation of sale price for cotton seeds to ensure their availability to the farmers at fair, reasonable and affordable prices" (Kohli, 2016).

This order was perceived to be totally in interest of the domestic seed manufacturers, while the interest of innovators like Monsanto were allegedly not considered. This was also perceived to be an impediment towards innovation across the sectors, suggesting that India does not safeguard IPR adequately. It was also suggested that the price regulation for the royalty and selling price was similar in nature to compulsory licensing, under the garb of promoting equitable distribution of an essential commodity.

Corresponding examples may be drawn from taxi sector. Historically, there has been a maximum cap on taxi fares per kilometres, prescribed by the government. After the advent of digital taxi-hailing services, popularly known as taxi aggregators, there has been a substantial drop in taxi fares, courtesy to intense sectoral competition. Despite competition provisioning affordable services to consumers, government of certain states such as Karnataka and Delhi, have imposed regulations for maximum and minimum taxi fares, which are unnecessary and allays competition in the sector.

Also, the government in a few regions imposed ban on surge pricing of taxi rides, which was based on the demand-supply balance. In case of high demand and low supply of taxis in a particular area, surge was applicable, which acted as an incentive for drivers to reach out to the demand, in relatively distant place from their location. While it costed a bit more for consumer, it ensured availability of services ubiquitously. Such dynamic pricing mechanism also helps in increasing vehicle utilisation and reliability, and dynamic pricing based on demand and supply of drivers on a real-time basis ensures access to mobility (ORF, 2017).

Aviation sector has also experienced price control under the *Ude Desh ka Aam Nagrik* (UDAN) scheme by the government, which caps fares at ₹2500 for a one-hour flight. While this may make airline services affordable to citizens, it may also negatively impact the other transport sectors such as railways and roadways. Moreover, it may make it unprofitable for airline companies to operate, in case of major fluctuations in cost of fuel or currency exchange rate.

All these examples suggest that while the intention was to safeguard consumers or producers, price control as a tool was not an optimal choice. It may have impacted the avenues for innovators (by deciding the quantum of royalty), or disrupted business model by capping fares or even deciding revenue for producers even below the cost of production.

This suggests that price control should be used by the government rather very cautiously. It should only be considered in case of market failure and the adverse impact on consumer/producer is established. The policymakers should only facilitate an environment for smooth functioning of market by ensuring adequate and fair competition and negotiations on good faith (in case of patent license fee). While for some sectors, it may be imperative, for others it might have a deep and negative impact than accruing any benefits. Thus, the government has to adopt a balanced approach, looking at the aspect of consumer welfare, as well as the interest of producers and innovators.

While, numerous challenges were covered in the ICRR 2017, it is also important to highlight some of the areas/issues, which need resolutions. The next section suggests for such areas, where actions might be needed soon.

Unfinished Agenda

Privacy and Data Protection Framework

One of the hotly debated issue globally, which has made its way to India, is on data privacy and protection. The advent of DE, which today is driven by artificial intelligence and data analytics, is thriving on information/ consumer data. Also, the expansion of DE at a global level is blurring the lines between the real and the virtual world, as well as between private and public space. Consumers today spend more time online for the purpose of accessing information and services through digital platforms, thereby generating enormous amount of personal and passive (usage) data. Almost 90 percent of the world's data in 2013, was generated during 2011-2013, with 2.5 quintillion bytes of data added each day (Jacobson, 2013).

Lack of Data Privacy and Protection Law

Considering the rising (economic and non-economic) value of such data, there has been an unprecedented rise in data collection and processing. However, India lacks a dedicated data privacy and protection law. It therefore becomes important to ensure that the collection and processing strategies deployed by data controllers[3] are not unethical or potentially illegal as well as against competition. Accordingly, in light of the above and the recent data breaches from the government as well as private platforms, various issues pertaining to securing this new resource are being deliberated upon by Indian Regulators (TRAI, 2017), judiciary and the government.

The Supreme Court of India, through Justice KS Puttaswamy Judgement (Supreme Court of India, 2012), declared right to privacy as a fundamental right, thereby rendering the existing data protection regime (Information Technology (Reasonable security practices and procedures and sensitive personal data or information) Rules, 2011) (MEITY, 2011) among other allied laws, as insufficient. The government constituted a ten-member committee headed by former Supreme Court Justice BN Srikrishna, which released its white paper in November 2017 inviting comments for drafting a data protection law for the country, which should result in granting freedom to consumers to negotiate the terms and scope of sharing their personal data.

Data Privacy and State Surveillance

The recent spate of the government in mandating *Aadhaar* number linkage with various services has also sparked a debate on the validity of the *Aadhaar* number itself, based on the contention that collection of biometrics (for granting of *Aadhaar* number) violates the newly granted fundamental right to privacy. The debate is now placed with a five judge Supreme Court bench headed by the Chief Justice of India, Dipak Misra set to hear the petition filed by several petitioners.

Further, there are also rising concerns over India walking on the path of China with regard to heightened government surveillance. Though India may not be integrating the same level of surveillance systems in its citizen's daily life (at the moment), the *Aadhaar* debate, along with the increase in other surveillance mechanisms is raising fears of enhanced governmental intrusion into the lives of its citizens.

Competition Issues

Since the latest business models hold consumer data central to a firm's competitiveness, large digital technology companies are remodelling their businesses to platforms, which enable them to capture and store big data. Unlike oil, data is an unlimited and ever increasing resource driven by network effects and carries traits of an infrastructure. However, companies are not willing to share the data they possess. Primarily, because it gives them a competitive edge over their competitors. They accumulate the user data and create data warehouses, effectively leading to market concentration through data domination.

The competition laws in most of the countries, only interferes in case of abuse of dominance. However, it is becoming more challenging to establish the abuse in the digital world. Hence, it might be time to realise that being 'big' is the new 'bad' and not wait for an abuse to happen. However, classifying 'big' as 'bad' might require more research.

Given the 'big' nature of technology companies, which account for all of the top five biggest companies in the work, there is a need to be cautious of such a winner-takes-all scenario. Such a situation may stifle innovation and raise competition law issues in future. Also, based on analogy of data as oil, holders and processors of big data sets may be considered to be large asset holders in the data industry. Accordingly, this may raise certain merger control measures for large digital technology companies, in possession of big data sets, in order to avoid foreclosure of the market, and subsequent consumer harm.

Data portability and sharing, by consumers themselves (or with their consent) with third parties should be helpful in reducing such data asymmetry. This will create a level playing field for all stakeholders and protect competition in the market, apart from enabling domestic digital technology start-ups to gain access to consumer data, in order to scale up and effectively compete with large foreign corporate giants.

Accordingly, keeping in mind the interests of domestic businesses, along with the national security of the country, optimal rules with respect to cross-border data flow, and server localisation may be mandated, which are inclusive and do not hamper innovation and technological advancements.

In order to address the above issues, a rights-based approach may be advocated for consumers, and free and fair competition must be ensured in the data driven markets. The findings and recommendations on draft law to be produced by the Srikrishna Committee will unravel the way forward for Indian consumers and businesses, apart for the other relevant stakeholders in the globalised and digitised DE.

Considering the above issues, the draft bill being prepared by the Srikrishna committee is taking centre stage, and there are several important questions which are expected to be answered through it. The primary question is: who owns the data – consumers who generate it or businesses/government who collect and process it? There is also a need to clarify the accountability of data collectors in terms of protecting the privacy of the data collected by them, along with defining the contours of legitimate purpose of data collection. It should also suggest solutions, such as data portability etc., to ensure fair competition in today's data driven market, and to avoid a winner takes all scenario. Finally, it should envisage to strike a balance between state surveillance and freedom of expression, to secure national objectives and individual rights.

Promoting Innovation by Harmonising Competition and IP Laws

As discussed previously, innovation, competition and IPR are intrinsically related to each other, especially in the context of standardisation of technologies. Optimal competition ensures that present competitors and upcoming market entrants constantly innovate to attain better returns from product differentiation and thereby add value to the process of standards development. On the other hand, IP protection aims at incentivising innovators by rewarding them for their effort and providing legal protection to their intellectual yield, which becomes the bedrock of the technical standard. Harmonisation of these laws, therefore, becomes imperative.

Emerging economies usually do not have a rich policy ecosystem to support possible innovations, but are seeking to develop their domestic innovation ecosystems to tap in the developmental benefits of technologies, such as 5G and Internet of Things (IoT), should first focus on advocacy efforts that generate awareness about standards, SEP exposure and the importance of investing in R&D. Moreover, they need to focus on harmonising the enforcement of competition and IPR laws (especially in the context of SEP licencing), and in their endeavour to do so, the general rule should be to treat standards and licencing of underlying essential-IP as efficiency improving, welfare-enhancing, pro-innovation and pro-competition.

In addition, it is in the interest of emerging jurisdictions to establish policies and practices which facilitate participation of domestic firms and institutions in international Standard Development Organisations (SDOs) or industry consortia. This will eventually increase their exposure to standard setting activities and help domestic firms to commercially leverage their technologies in the global value chain.

Regulation and Competition of IoT

IoT driven by big data, are enabling smart products and cities, which constantly interact with amongst themselves, and with humans. Apart from the many benefits in various sectors and spheres of human lives, it is also poised to bring about a host of competition law issues, some of which have been discussed below:

The enhanced dependence on internet, interoperability of ICT products requiring standard setting, may aggravate the already contentious issue of harmonising competition and IP laws in the realm of SEPs. Further the enhanced possibilities of direct and indirect network effects may also become a cause of concern, which may also restrict interoperability.

Another issue revolving around open source vs proprietary IoT ecosystems has been started to be debated. With arguments and counter arguments by the proponents of these concepts, the issue may require in depth study from the lens of consumer welfare. However, the issue may get intertwined with the age old debate on patentability of software, which may further create obstacles in choosing the right path of balancing innovation and competition keeping in mind the interests of all the stakeholders.

Furthermore, the risk of tying and bundling of goods and services may also be magnified, due to the close interaction/communication between physical devices (hardware) and data analytics (software) required for enabling IoT services.

The increased dependence on data analytics in providing IoT services may also lead to the risk of large enterprises collaborating with each other by sharing data from their respective IoT products, to the exclusion of others. Also, the possibility of data analytics revealing competitively sensitive information about rivals, may also need to be adequately considered.

National Energy Policy 2017

While India is striving hard to ensure food and energy security for its citizens, its primary source of energy generation, i.e. coal based power plants, are plagued with shortage in supply of coal. Similar is the case with gas based plants, where over 20,000MW capacity is standing idle due to non-availability of gas. Further, State Electricity Distribution Companies (Discoms) have been grappling with financial issues such as populist tariff schemes, operational inefficiencies and growing Aggregate Technical & Commercial (AT&C) losses. While this has subjected banks in a dilemma over further lending to Discoms, the rising lending rates over the last 4-5 years have done no favours to the sector either.

These issues have contributed to delays and project cost overruns, which have impacted the tariffs. The high end tariffs have reduced the capacity of states to procure power according to their requirements, which has negatively impacted the manufacturing sector as well. Thus, there was a need for major reforms in the existing policy framework while aligning micro-level policies, such as fuel cost pass-through, mega power policy, competitive bidding guidelines, etc. to The Electricity Act 2003 and the National Electricity Policy (Puri, 2014).

Understanding the need, the NITI Aayog released a Draft National Energy Policy (DNEP), which envisages a quantum leap in the uptake of renewable energy together with a drastic reduction in fossil fuel energy intensity between year 2017 and 2040 (Kumar, 2017). The four key objectives of the new energy policy are ensuring access at affordable prices, improving energy security and reducing dependence on fossil fuels; promoting greater sustainability and renewable energy; and ensuring sustained economic growth (Kumar, 2017). While the draft policy is comprehensive in nature and covers most of the crucial aspects that an ideal policy should, there is need for additional aspects to be included as well.

The existing coal based power plants are running at low efficiencies; the draft policy relied on coal power to sustain the country's base load requirement to meet rising energy demand. Such situation may become bone of contention to meet energy requirements in the future and may give rise to other unintended problems. For instance, Ultra-Mega Power Projects (UMPPs) were designed to meet energy requirements but are not being operational with full capacity. Recent judgement of Supreme Court disallowing Tata Power and Adani Power to charge compensatory tariff had put the economic viability of plants in jeopardy.

One of the issues, that emerged from this judgement, was to preserve sanctity of contract (and allow business to suffer) or uphold sustainability of business (and allow contract to be reneged). Thus, there is a need to strengthen the design of contracts. While, draft policy did not cover contractual issues but it does affects the current energy requirements and future projections. Therefore, policy should suggest some measures safeguarding the sector from externalities.

The policy should focus on both conventional and non-conventional forms of energy. While the long term objective of the policy should be a move towards non-conventional energy sources, it should not discount for the existing scenario, where most of the energy requirement would be met through conventional energy sources. The policy should also strive for an inclusive regulatory process. The regulator must consider the interest of all relevant stakeholders and strike a balance in resolving issues.

Since the sector is cash strapped, efforts must be made to seek alternative investment and credit sources, where global funding agencies, such as the World Bank (WB), Asian Development Bank (ADB), etc. may play a pivotal role. Finally, the entire sector can work significantly better if a public-private partnership (PPP) model is adopted at a larger scale. Private players have shown considerable potential in bridging the energy deficit in the country and hence should be provided support and further incentives for better production by the government.

Rules for Distributed Ledger Technology, Blockchain and Cryptocurrencies

During the 2018 Budget speech, the Finance Minister Arun Jaitley, quoted "*The Government does not consider crypto-currencies legal tender or coin and will take all measures to eliminate use of these crypto-assets in financing illegitimate activities or as part of the payment system*". This has casted a doubt on the future of cryptocurrency ecosystem in India.

Distributed Ledger Technology (DLT) and Blockchain formulate the base of cryptocurrencies. Lately cryptocurrencies have seen a tremendous surge in their stock market valuation, with one of the currency witnessing a rise from US$800 to over US$15,000 per unit and then crashing to US$10,000. India too is witnessing a lot of traction on blockchain and DLT. However, the momentum for cryptocurrencies has dampened in India after budget speech of 2018 and at the same time Blockchain technology has been delivered a boost. As a part of the budget speech, the government declared that "it will explore Blockchain, to add muscle to the digital economy".

Blockchain is increasingly being experimented within sectors such as banking, insurance and card industry. There also seem potential advantages of using blockchain in vehicle and records, subsidies, medical and educational benefits, agriculture and agriculture holdings, national identity, among others.

Industry players, across sectors, are trying to gauge the benefits of blockchain at industry level. Considering these aspects, a working group was established by Institute for Development and Research in Banking Technology (IDRBT) in 2016 on "exploring the applicability of blockchain technology to Indian banking and financial industry". The working group constituted of experts from regulator, academia, technology providers, consultancies, scheduled commercial banks, research organisations, etc. The outcome was a whitepaper which detailed out the technological, challenges, best practices and experiences across globe and possible adoption avenues of blockchain in financial sector in India.

However, DLT is also associated with numerous challenges. Since DLT is based on transparency of data, it raised privacy and confidentiality concerns for consumer data. There might be security concerns pertaining to unauthorised access and hacking. Also, there seems a lack of interoperability between various DLT consortia, which may reduce the effectiveness of DLT. There also exist concerns on the reliability and accuracy of records in the blockchain.

DLT also faces certain regulatory and competition issues. Given that DLT and blockchain are all evolving, it is highly challenging to draft rules around their use. While there is a lack of clarity on identifying or creating an appropriate regulator, the regulator itself would need to develop capacity to understand these complex technologies to depth. Accordingly, it would need to be ascertained how DLT interacts with current laws and regulations, across sectors. This may require invoking certain legal rules where regulations are silent. (ITU, 2017) Also, given their neutrality towards any specific technology, the scope or activities to be regulated, is also difficult to ascertain. Identification of prospective consumer implication and applying consumer protection measures, is not an easy task either.

Further, it has to be determined identities registered in one jurisdiction on a DLT be seamlessly used for authentication purposes in another jurisdiction. (ITU, 2017) Similarly, the impact of cryptocurrencies, DLT and blockchain on regulated banks and financial institutions also needs to be gauged and a level playing field need to be created. It also raises numerous issues pertaining to KYC obligations, contractual provisions, liabilities, damages, evidence, threat of hacking and also the validation and accuracy of data.

Implementation of National Competition Policy

Last two years have been very busy for the CCI, engrossed in numerous cases, such as Board of Cricket Control in India, Micromax and Intex vs Ericsson, Reliance Jio, etc. As the economy is growing, competition issues seem to be growing as well. Moreover, with rapid transformation of the existing economy into its digital variant, i.e. DE, the country is expected to experience an unprecedented surge in competition issues.

While, it is already a challenge to understand their evolution, the new age disruptive digital businesses are posing a serious threat to traditional one. Moreover, it is presenting an even complex problem for the competition law. These disruptive businesses have challenged the fundamentals of competition law such as the traditional definition of concepts like monopoly, dominance, agreements and relevant market. The situation is even more difficult in the case of multi-sided markets.

This scenario suggests for the implementation of the National Competition Policy (NCP) in India, which can be an *ex-ante* tool to promote competition as well as to avoid the very genesis of various competition concerns. The NCP was drafted in 2011 by the Ministry of Corporate Affairs, is still awaiting its adoption by the Cabinet. Since 2011, there have been a lot of developments, which would need to be addressed in the earlier draft. However, implementation of the NCP will ensure and equitable application of competition principles to all economic agents in the economy.

A number of countries, such as Australia, have adopted a competition policy and reaped immense benefits in terms of rapid economic growth. Sadly, despite numerous empirical evidences showcasing the probable benefits, the policy has not seen light of the day in India. It is well documented that effective competition is the instrument for attaining economic growth through enhanced innovation, efficiency and productivity as well as ensuring social gains by overall poverty reduction and greater consumer welfare (CUTS, 2016). It may be said that an early adoption of the NCP will ensure the holistic development of the country, which the citizens are desperately waiting for.

In Lieu of Conclusion

While concluding this edition of ICRR, CUTS drawing lessons fro the analysis presented in this report, put forth a few suggestions:

1. In competition law cases, the objective of the court should be to protect the essence of the FRAND commitment and not go into deciding the reasonable royalty amount. Also, the government should only intervene into patent licencing agreement or determination of royalty rates for essential commodity.

2. In case of conflict between two IP laws, the government should adhere to the recourse given under the National IPR Policy, i.e. by consensus in the best interest of public.

3. Policymakers and the market regulator should follow a general non-interventionist approach, unless there is clear economic evidence to support anti-competitive concerns. A three tiered structure can help guide policy approaches, i.e. encourage good-faith negotiations, support alternate dispute resolution mechanisms and enforce and interpret laws in a harmonious manner.

4. Creation of monopolies should be minimised by optimising regulations and promoting competition. This may be achieved through an inclusive and consultative process and lowering the barriers for new entrants.

5. Competition policy can be effective in the attainment of SDGs only if other complimentary issues are also effective

6. A payments systems advisory committee should be constituted, to ensure structured stakeholder consultation for promoting digital finance. A payment regulatory board should also be operationalised.

7. Direct access should be provided for non-banks to technology and settlement services offered by critical retail payment platform/ infrastructure providers. Also, indirect access should be provided to non-banks to RTGS system run by the RBI.

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Endnotes

1 Regulatory Impact Assessment (RIA) is a process of systematically identifying and assessing direct and indirect impacts of regulatory proposals and existing regulations, using consistent analytical methods. It involves a participatory approach via public consultation to assess such impact, determination of costs and benefits, and selection the most appropriate regulatory alternative. (Source: CUTS International)

2 Set of rules that allows innovators to test their products/business models in live environment without following some or all legal requirements. (Source: World Bank Documents)

3 'Controller' means the natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data; where the purposes and means of such processing are determined by Union or Member State law, the controller or the specific criteria for its nomination may be provided for by Union or Member State law (European Union, General Data Protection Regulation)

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