



Confederation of Indian Industry



Socio-Economic Impact of Piracy in the Publishing Sector



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Foreword



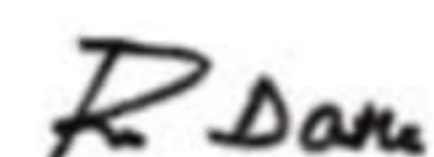
There are many industries that benefit from IP, both directly and indirectly. For every innovation in a given industry, there are corresponding economic opportunities for other industries to bring advances to the public. When companies are more confident that their ideas will be protected, they have the incentive to pursue advances that push efficiency forward, costs down, and employment up.

Confederation of Indian Industry (CII) is committed to propagate and promote the role of IPR in leveraging competitive advantage by the Indian industries. It has always supported strong protection of IPR in India. In this context CII has been working closely with the Government of India for framing and implementation of IPR policies apart from helping industry, institutions and communities in protecting and leveraging IPR for economic and social development.

With this background, Confederation of Indian Industry (CII) feels it is important for India to have an IP law and agreement in place, which is updated based on the requirements of the Indian Industry, so that there is enough space for the Industry to innovate and sustain in the present global scenario.

On behalf of CII, I am pleased to share the report on 'Socio-Economic Impact of Piracy in the Publishing Sector'. This report highlights the economic impact of piracy to the country in publication of books and makes certain policy recommendations to Government of India.

I take this opportunity to thank all stakeholders who have contributed towards this project. CII hopes that this report will trigger new initiatives from the Government that will help alleviate concerns of the publishers and provide impetus to the future growth of this sector.



Ramesh Datla

Chairman, CII National Committee on Intellectual Property &
Managing Director- ELICO Limited

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Executive Summary

Piracy has long been a concern for publishers operating in India. Piracy in the publishing sector is the result of a host of factors like poor enforcement of laws, lack of coordinated market action and limited awareness and regard for copyright laws among consumers.

Once perceived as 'victimless crime',¹ piracy has raked up significant global awareness resulting in targeted action against those engaging in such acts. India, as a signatory to international treaties, is no exception.

However, it is not until recently that copyright piracy in the books segment has received greater focus, both at the regulatory and the industry level. Greater regulatory intervention and stricter enforcement mechanism against piracy is the need of the hour. What stands as a veritable challenge though, is the fact that while everyone agrees about the existence of piracy, there is virtually no understanding on the enormity of piracy and its impact on the industry and economy at large.

Limited attempts have been made to estimate the piracy levels in the books market. Estimates about losses incurred by the industry due to piracy, as widely circulated within the industry, are putative in nature.

The current study draws inspiration out of the need to estimate the incidence of piracy in the publishing market. The study estimates the levels of piracy prevalent in the Indian publishing sector, using quantitative and qualitative methods, based on data published by the Government of India and the states, during the period 2007-08 to 2011-12. The period of assessment coincides with the latest period for which the relevant data is available.

Publishing in India, which is largely informal and unorganised, is a vibrant market driven by the country's growing level of education and demographics. As part of its efforts to improve India's human development paradigm, the Government of India has undertaken a number of steps including increasing the outlay of expenditure on education, providing legislative recognition to every child's right to basic education, and bolstering the educational infrastructure in the country. The publishing sector will clearly be at an advantage being a key input provider to the education industry. The sector is, however, plagued by piracy in many forms, which creates challenges to growth of the legitimate industry and creation of intellectual capital that supports India's quest to become a leading knowledge economy.

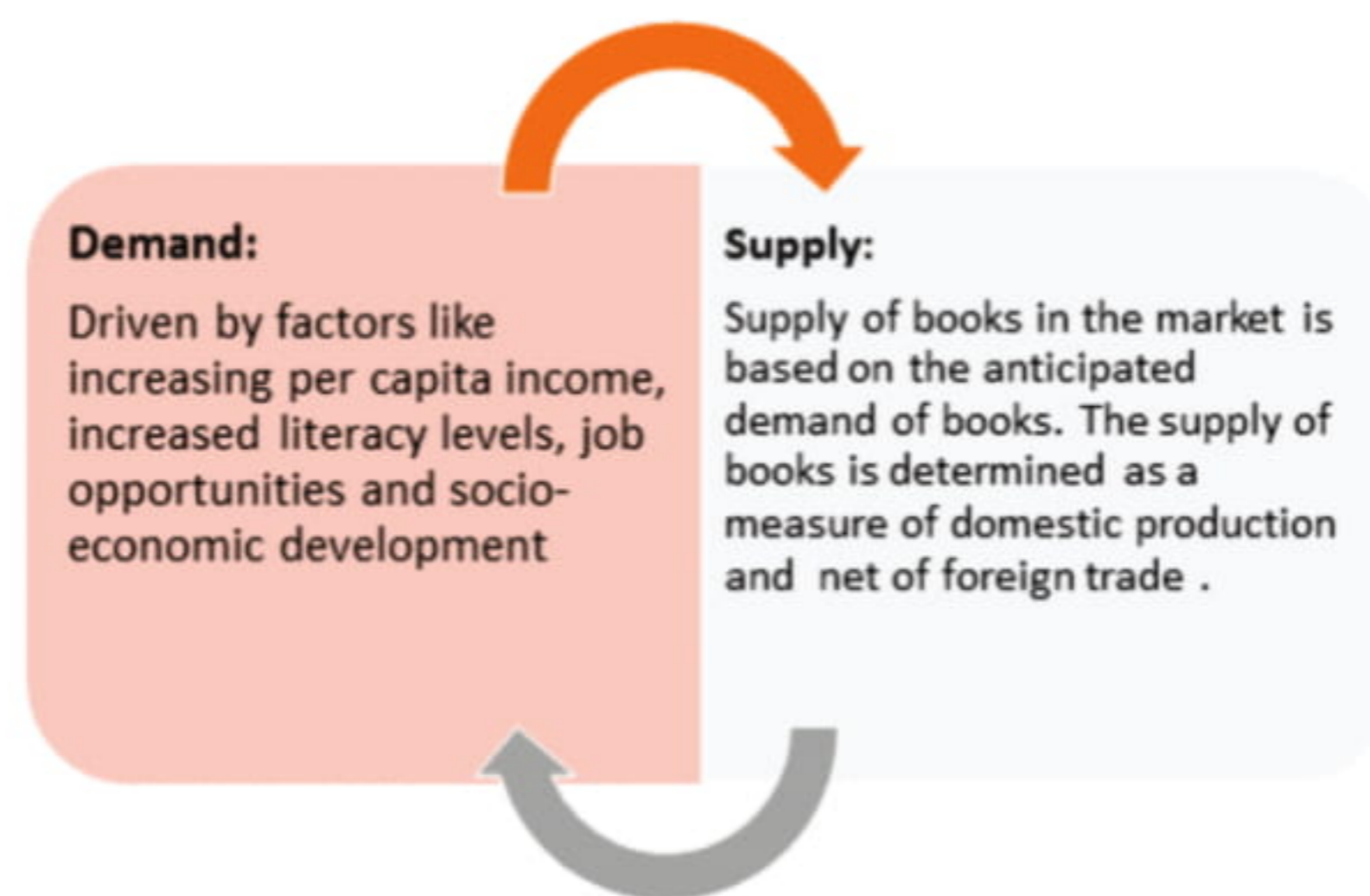
¹ According to popular perception, 'counterfeiting would be a 'victimless crime' or a 'second class crime', which would not cause "real" consequences to the society or to consumers, but only economic prejudices affecting rich multinational corporations': Taken from Strategies for technical-judicial training and awareness-raising on counterfeiting: UNICRI, refer http://www.unicri.it/topics/counterfeiting/training_awareness/Guidelines_CRT_EN_Awareness.pdf

In the absence of any substantial prior research in India on the subject of quantifying piracy in India through quantitative methods, this study is one of the first attempts in this direction and hence has its own limitations.

The hypotheses of the study are based on fundamental economic principles that say that whenever there is an unfulfilled demand through legitimate sales, the market fulfils it through other means. These means, of course, are not legal and hence would constitute a measure of the grey or illicit markets. In this study, we consider this unfulfilled demand to be catered to by illicit or 'Piracy' segment.

Research Methodology

The study is based on determining economics and market size of legitimate supply and demand/consumption of books. Using government data and statistical definitions and analysis as a reference point, the study defines the market size of pirated books as a gap between the total expenditure on books by households/students and the legitimate supply of books in value ter



Piracy Level in Publication Industry

The piracy level in the publication of books industry is the "difference" between demand and supply side estimates on the publication of books.

Estimates on Demand/Consumption of Books

The study estimates, market of publication industry of books based on expenditure on books at consumer levels by the households from the data on household consumer expenditure

survey of the National Sample Survey Organisation (NSSO) of the Ministry of Statistics and Programme Implementation (MoSPI), Government of India.

Estimates of Legitimate Supply of Books

In estimating supply side of the publication of books, the study captures value of supply from sum of production from factories for domestic consumption (from ASI data), registered and unregistered micro, small and medium enterprises (from MSME data), net of foreign trade [import and exports data from Directorate General of Commercial Intelligence and Statistics (DGCIS)] and publication by the Governmental institutions bodies such as National Council of Educational Research and Training (NCERT), State Education Boards and National Book Trust (NBT). The value of supply side has been adjusted to get values at the consumer level for estimation of piracy levels in the publication industry.

Piracy in Publication of Books

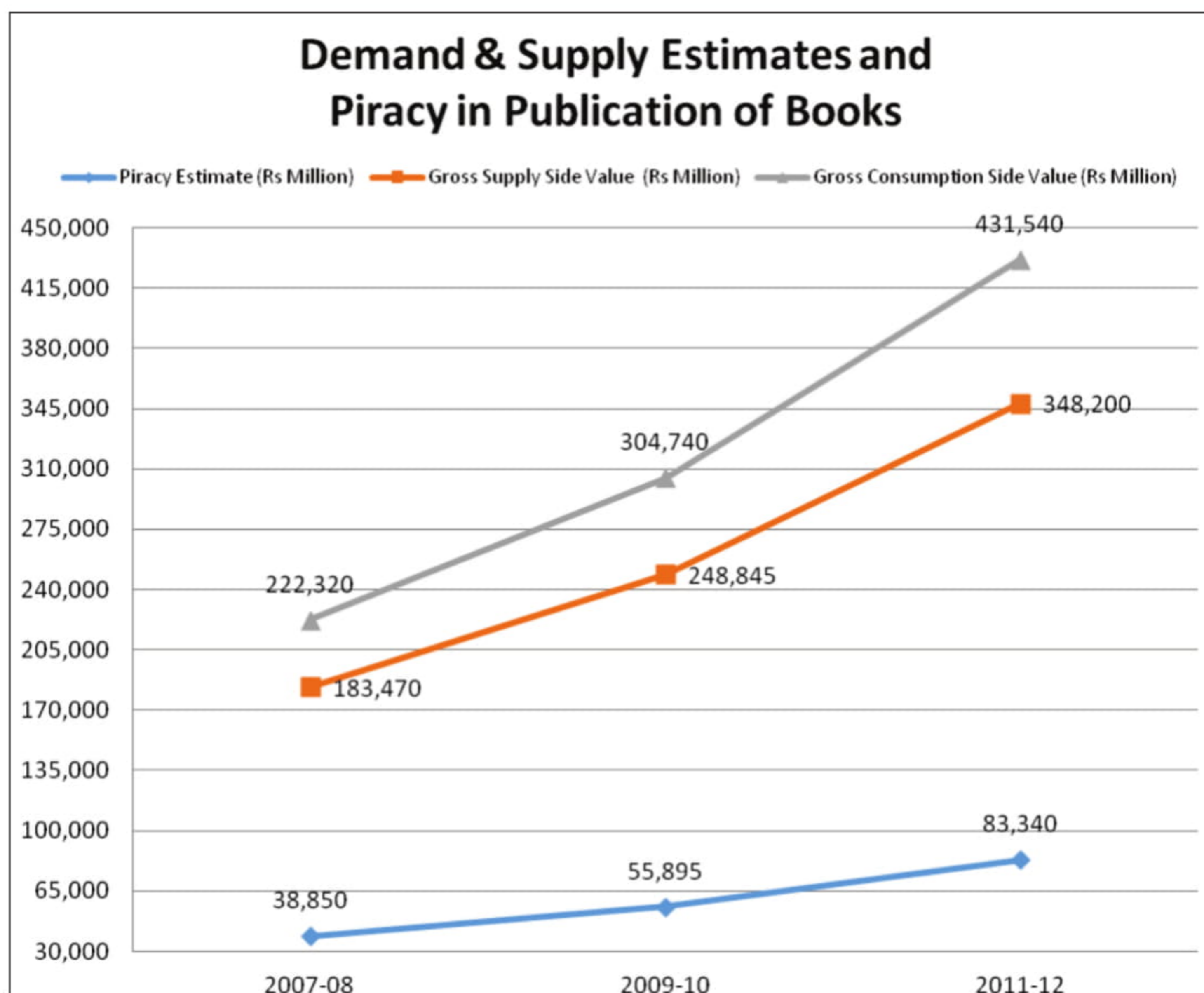
Piracy Level in Publication of Books (Percentage) =

$$\frac{\text{Difference between Consumption and Supply Side of Books Published} \times 100}{\text{Overall Expenditure (Consumption) by all the Households on Purchase of Books}}$$

Table 1. Piracy Estimates and Level in Publication Industry of Book			
Description	2007-08	2009-10	2011-12
Gross Supply Side Value: Consumer Level (Rs Million)	183,470	248,845	348,200
Gross Consumption Side Value: Consumer Level (Rs Million)	222,320	304,740	431,540
Piracy Estimate (Rs Million)	38,850	55,895	83,340
Piracy Level (Percentage)	17.47%	18.34%	19.31%

Piracy in Publication of Books –Trend Analysis

As evidenced in the study, piracy in publication of books follows the demand and supply phenomenon in the market. During the period between 2007-08 and 2011-12, the demand/consumption for published books registered a near 100% jump. As the graph would highlight, during the period covered, both consumption as well as the supply for published books registered an increase. The difference between the demand and the supply is measured as the piracy market. The piracy levels during the stated period is estimated to be between 17.47% and 19.31%. This includes both academic as well as non-academic books.



Summary of Results

- The study estimates the level of piracy in publication of books to be increasing in the range of 17–20%, during the period 2007-08 to 2011-12.
- Piracy level in Academic Book Publications is estimated to be around 12-15%. For

non-academic publishing segment, the piracy levels during the same period is estimated at 22-25%.

- The loss of legitimate sales revenue due to piracy in publication of books stands at Rs 83340 million in 2011-12, as against the Rs 38850 million in 2007-08.
- Lower industry revenue leads to lower tax revenue for the government. The study estimates that due to the piracy, the tax loss in 2007-08 was Rs 3205 million, which increased to Rs 4610 million in 2009-10 and went up to Rs 6875 million in 2011-12.

Impact of Piracy in the Publishing Sector

The impact of piracy in the publishing sector is far-reaching, and goes beyond the recognisable economic losses. The losses resulting out of copyright piracy has a significant economic impact on the industry, government and the domestic market. Broadly, the impact of piracy in the publishing sector can be bifurcated as:

Economic Impact

- **Loss of Employment:** The study quantifies the industry's loss as a measure of revenue lost due to sales. Beyond the losses resulting from lost sales, there are related economic losses in the form of loss of employment due to reduced business activity in the legitimate market segment.
- **Loss to the Government:** Lesser revenue from sales means lowering of taxable income at the hands of the publishers, distributors, retailers as well as authors (as royalty income) — all of whom form part of the industry value chain.
- **Impact on Investments and Innovation:** Essential to India's emergence as a knowledge economy is the need to build an environment of intellectual curiosity and expression so that the society could benefit from new thoughts and expressions manifested in books. Books and publications in turn help the drive towards innovation. Piracy of books impacts the very basis of intellectual growth and development. Lack of faith by the rights holder over their ability to make reasonable gains out of their labour could bring down the investment cycle in the sector at large.

- Increase in Economic and Organised Crimes: Those engaging in piracy could utilise the proceeds of their business into illegal activities and promoting organised crime networks. The real impact of such crime networks can be widespread leading to huge losses for the economy and the society. The most serious consequence of trade in pirated products is the stimulation of organised criminal activity and the consequential effect upon public and private corruption. This penetration of organised crime into otherwise lawful economic sectors has a pernicious impact on public morality². Counterfeiting has attracted both organised and petty criminals who have not only derived huge profits from this trade but have also used it, both as a means to invest the proceeds of crime and to finance other crimes³.

Significantly, piracy has an indirect impact— whereby it dents into the country’s intellectual growth, creativity and a passion for research and writing. Not the least among its effects, piracy impacts the culture of education and learning.

Social Impact

- Effect on Creativity, Intellectual Development and Research: Publication of books carries forward the passion of knowledge creation and dissemination. Piracy hurts at the very core of this passion. It makes investment in creative information industries less profitable and more significantly often may lead to disenchantment among writers. Effects such as the presumed absence of publications that might otherwise have been created are inherently difficult to measure.
- Impact on the Education and Learning: As found evident during the research, pirated books are not just low in terms of their quality, but are also incomplete. As has been seen in the case of NCERT books, pirated versions often change the content or have pages missing. All this jeopardise the very reason why students buy those books. It is evident that the motivation of pirates is only restricted to selling their version. Books are meant to be used as tools of education and knowledge. Piracy can destroy the content as pirates may publish erroneous or edited content, hence affecting uniformity of content especially in the case of schools text books.

² European commission impact of counterfeiting available at http://www.ecap-project.org/archive/fileadmin/ecapll/pdf/en/ipr_enforcement/customs_handbook/2_impact_on_counterfeiting_and_piracy.pdf

³ Economic Impact of Counterfeiting and Piracy, OECD, 2008

Recommendations

Piracy in the publication sector can be controlled through a calibrated approach, requiring government and the industry to work in consonance. Towards this objective, it is important to develop an understanding about the effects of piracy across all sections of the society and also develop mechanisms that act as a deterrence keeping in mind the ground realities of India.

Based on the realities that drive piracy in India and considering the increase in the piracy levels, it would be appropriate to give priority to the following steps:

Strengthening Enforcement

Effective enforcement against copyright violations should deter piracy. Enforcement action should be targeted and clearly directed. With the legislative framework in India on copyrights significantly strict, the following areas need to be redressed to bring effectiveness to the enforcement mechanism:

- Enforcement agencies, including police authorities, must be equipped, strengthened to administer and enforce copyright laws. Enforcement authorities should be provided regular training on latest trends and mechanisms in piracy.
- Coordination between states and increasing checks at borders is very important so as to catch movements of such goods.
- Creating an effective deterrence mechanism and environment.

Public Awareness and Outreach

Consumer indifference and unawareness is considered a significant stumbling block to controlling piracy. Piracy is a phenomenon often driven by consumer apathy and lack of knowledge of copyright laws.

Among the measures which could change the attitude of students towards piracy are:

- Government and industry stakeholders' actively promoting public awareness campaigns on copyright piracy and its consequences for the economy, culture and

society at large. Awareness campaigns should emphasise the social costs of copyright piracy and the impact it has on not just the economy and organisations but also on ordinary people.

- School boards could introduce awareness programmes on copyright violations as part of course curriculums, highlighting sections on benefits of copyright, negative effects of pirated books and ways to differentiate pirated books from original books.
- To popularise the importance of copyrights and its economic contribution, the government could utilise awareness mediums available within various departments of the government.

Education, Economy and Publishing

Overview

Books serve as reservoirs of knowledge for people across all age groups. Books are central to providing information, entertainment, analysis and education to millions throughout the world⁴. Books signify the socio-cultural evolution of human beings in their urge to know more and are a multiplier for social and economic development for the society.

Publishing represents a society's evolution and is determined by the aspirations of the people. The importance of publishing cannot only be measured in terms of its economic impact. The contribution of publishing goes beyond economic considerations as it is a tool for the social, cultural and intellectual growth of the society.

Publishing is of central importance to the cultural, intellectual and educational life of a nation. It is also a central element in the emerging nexus of knowledge industries that are important to post-industrial societies⁵.

The dynamics of book publishing has evolved with the availability of technology. While publishing as a business does not require very high investments, it reflects the use of intellectual capability, wherein an idea in the mind of the author is developed into print and is distributed to the relevant audience⁶. So, publication of books is representative of a nation's intellectual capital, significance of which cannot be measured through mere numbers.

While the importance of the book publishing market can never be overestimated, the success of the market is contingent upon various factors. Population, literacy level, income levels are among few of the critical factors which determine the strength of the publishing industry⁷. Irrespective of the challenges faced from new-age information tools like digital publications, the book publishing market is robust in a developing country like India.

India – Education, Demography and the Society

Since independence, India has transitioned from a largely agriculture-driven economy to an industrial economy with a high growth potential. The gradual economic growth has improved the socio-economic condition of its people. With economic development came a socio-cultural transformation which propelled people to spend more on education as a means to

⁴ World Information Report, 1997-98 UNESCO; <http://unesdoc.unesco.org/images/0010/001062/106215e.pdf>

⁵ Ibid

⁶ Ibid

⁷ Ibid

leading a successful life. The emergence of a thriving society looking to empower itself by availing the opportunities the economy offered, led people to spend more on education.

The evolution of India from an agrarian to a developing economy has seen a rather silent emergence of a vibrant knowledge economy. It is due to this knowledge imperative that the publishing of books has evolved into a robust business activity. Beyond all the sociological and cultural importance that publishing of books may offer, the industry is driven by the economic logic of demand and supply.

Over the last decade, India has seen an exponential growth in the number of academic institutions, many of which have emerged as globally recognised centres of education. This growth has not been sudden. It has developed over the years and has flourished in the post-liberalisation era where the economy was thrown open to the prospects of high growth, higher per capita income, greater employability and higher domestic savings.

The publishing business in India has evolved over time and is witness to the socio-economic and cultural evolution of its people. Publishing in India has followed the societal evolution, which has taken significant strides since independence.

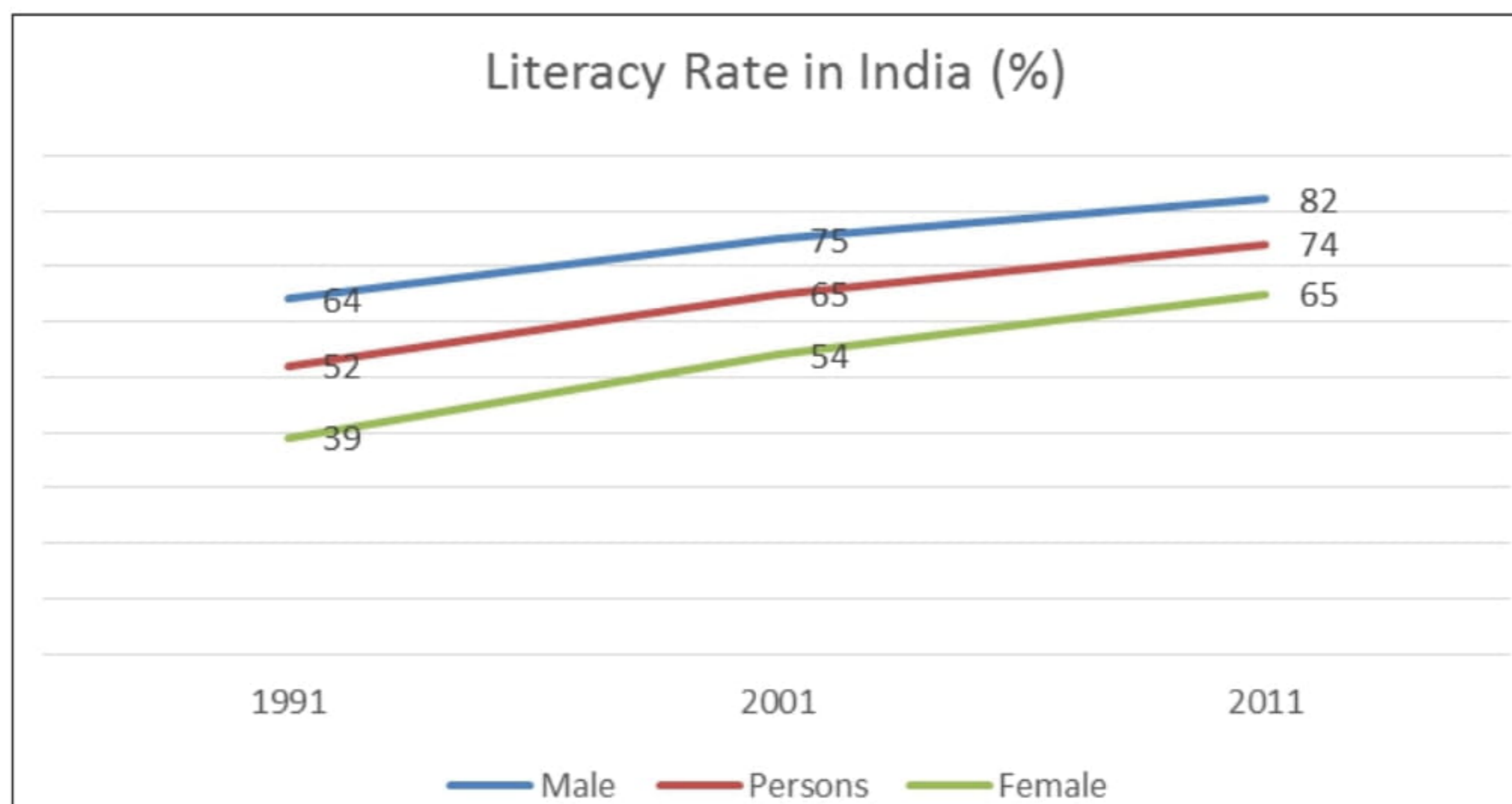
Youth Demographics in India

Propelling the increased thrust on education is the country's literate youth. Powered by its youth, India is at the cusp of a demographic shift. A significant chunk of India's population is in the age group of 13-35 years. According to Government estimates, 41.05% of the total population of India is between 13 and 35 years old.

According to estimates, the current proportion of India's population which is under 25 years is 51% and the proportion under 35 years is about 66%. This predominance of youth in the population is expected to last until 2050. Comparatively, while the average age of an Indian in 2020 is expected to be 29 years, the average age for China is expected to be 37⁸.

The demographic advantage deepens with increase in the literacy rate. One reason for the increase in readership is that literacy rates have improved from 52.2% in 1991 to 74% in 2011. Readers can be categorised into those enrolled in schools or in higher education at colleges and universities.

⁸ Indian Government Statistics (MoSPI, Economic Survey)



Source: Ministry of Statistics

The literacy rate has steadily increased, adding to the number of educated and liberal minded youth. This significant jump in the number of educated youth makes way for the country's education economy to prosper.

Book publishing has increased over the years with increase in readership of books. Readers can be categorised into those enrolled in schools or in higher education at colleges and universities. Enrolment of children at the primary education stage has reached near-universal levels. The growth of enrolment in secondary education accelerated from 4.3% per year during the 1990s to 6.27% per year in the decade ending 2009-10. Youth literacy increased from 60.5% in 1983 to 91% in 2009-10 and adult literacy improved from 64.8% in 2001 to 74% in 2011⁹.

The increase in the number of graduate youth impacts book publishing in higher education. With increase in the adult literacy rates, the readership of books has increased because of growing awareness and development of a culture of reading in educational institutes.

Role of Government in Promotion of Education

The policy prerogative to make elementary education affordable to all irrespective of their economic status found resonance in the implementation of the Right of Children to Free and Compulsory Education Act 2009 which guarantees free and compulsory education to all children between six and fourteen years.

⁹ Twelfth Five Year Plan, Available at: <http://12thplan.gov.in/>

Books constitute key input providers to the education industry. Under the government-sponsored schemes like Sarva Shiksha Abhiyan (Education for All), substantial funds are allocated and utilised towards spending on textbooks, which is a sign of the growing impetus towards education.

The Sarva Shiksha Abhiyan (SSA), which has been operational since 2000-2001, provides for policy interventions for universal access and retention, bridging social category gaps in elementary education and improving the quality of learning. SSA interventions include the opening of new schools and alternate schooling facilities; construction of schools and additional classrooms, toilets and drinking water; provisioning for teachers; periodic teacher training and academic resource support; textbooks and support for learning achievement¹⁰. Spending on textbooks constitutes a significant portion of the expenditure borne by the government.

Recognising the importance of education in national development, the Twelfth Plan places significant focus on the expansion of education, on significantly improving the quality of education imparted and on ensuring that educational opportunities are available to all segments of the society.

The education expenditure as a percentage of gross domestic product (GDP) rose from 3.3% in 2004-05 to over 4% in 2011-12. Per capita public expenditure on education increased from Rs 888 in 2004-05 to Rs 2,985 in 2011-12. The bulk of public spending on education is incurred by the State Governments and their spending grew at a rate of 19.6% per year during the Eleventh Plan period (2007-2012).

Public expenditure on secondary education has increased from Rs 358060 million in 2007-08 to Rs 941830 million in 2011-12, leading to an increase in its share as a percentage of GDP from 0.78% to 1.05%. Per capita expenditure on secondary education has gone up from Rs 315 to Rs 784 during this period. The Central Government's expenditure has gone up from Rs 25780 million in 2007-08 to Rs 132780 million in 2011-12, a five-fold increase.

The bulk of public spending on education is incurred by the State Governments. Aggregate public spending on education during the Eleventh Plan (2007-2012) period was estimated at Rs 12,447,970 million for both the Centre and States taken together. About half of the Central Government's expenditure was incurred for higher education and the remaining for elementary (39%) and secondary (12%) education. In the State sector, about 75% of

¹⁰ Ministry of Human Resource Development, at <http://mhrd.gov.in/schemes>

education expenditure is for school education, of which 44% is on elementary education and 30% on secondary education¹¹.

Publishing Market for Books

Publishing in India has two broad divisions: educational and trade. Educational publishing has its own categories and specialisations but broadly covers school, college and higher education, and practitioner/professional. The academic publishing market makes up a significant portion of the total publishing output.

Educational publishing at the school level is dominated by NCERT, State Textbook Boards, which publish books for students based on a set curriculum framework. Books by private publishers constitute a limited fraction at school level but constitute significant portion of publishing at higher educational level.

Trade publishing on the other hand, covers general or consumer publishing essentially targeted at the lay reader and covers all categories from fiction to narrative non-fiction to business to children's books to reference.

Over the years, the income levels of people have gone up. This has made families more inclined and motivated to spend on their children's education. Parents are no more reluctant to spend on their child's education and would often walk the extra mile in spending on education and allied costs. The publishing sector, especially with respect to books, has been a clear gainer of this uptrend.

There can be little argument that the publishing sector in India has emerged as a resilient market, immune from the effects of economic slowdown or lagging growth. Education has caught the imagination of the common citizenry, a trend which is indicative of the social transformation of the country.

The economic slowdown which considerably cut down on the household income of families had a minimal impact on the education industry. The growth of the education industry has remained robust and reflects the increase in the literacy rates of the youth of the country. The socio-economic upgradation, especially in terms of the Indian populace has positively impacted the growth of the publishing sector.

¹¹ Planning Commission of India Estimates

The growth of the book publishing industry in India has been robust. There are about 19,000 publishers in India, of which 12,400 have ISBN numbers. About 90,000 titles are published every year, i.e., about 80 titles per million of population¹².

With the advent of technology and with people getting greater access to information technology, publishing of books is gradually moving towards digital publishing. The digital publishing market is nascent, building upon the growing levels of internet penetration in the country.

Publication of Books – Market Estimations

Lack of credible data on the market segmentation for the publishing sector makes it difficult to differentiate the book publishing market in India. Estimates on the book market size in India is largely hypothetical and based on broad industry generalisations. Attempts have been however made to estimate the market. The recently released report by NCAER on the impact of parallel imports (January 2014)¹³ pegs the Indian books market size to be Rs 140000 million, 70% of which accounts for education books. While these figures are based on industry estimates, they cannot be ignored. Nor can they be blindly trusted.

Notwithstanding the anomalies about the size of the market, the education publishing industry plays a pivotal role as a key input provider to an economy where nearly half the population is under the age of 35. The country's demographic advantage is dependent on the growth of the education economy of the country. The publishing sector in India serves as a key input provider to the education industry and hence the industry growth projections are bullish.

The publishing of books faces challenges in the form of rising input costs, changes in technology and increase in competition. Despite all this, the book publishing segment in India is vibrant and the growth potential is large owing to the socio-economic development parameters that stand in its favour. One cannot ignore the socio-cultural impact book publishing has on the evolution of the country.

¹² Report by German Book Office (GBO), New Delhi, published in Frankfurt Academy Quarterly (FAQ), BRIC Markets, 2012/13

¹³ The Impact of Parallel Imports of Books, Films / Music and Software on the Indian Economy with Special Reference to Students (NCAER) ; January 2014, available at copyright.gov.in/Documents/Parallel_Imports_Report.pdf

Piracy in the Publishing Sector: Essential Dynamics

Piracy impacts revenue earnings for the genuine market players, dampens industry sentiment and creates a class which is not accountable to the law, society or government. In terms of the economic loss, piracy has a negative impact on the sales revenue for the publishers, distributors and retailers. Lower sales necessarily imply lower income for all those engaged in the supply chain, resulting in tax losses for the exchequer.

In the publishing sector, the ones who are directly affected by the incidence of piracy are the publishers who invest money to develop intellectual assets in the form of books. However, the losses resulting from piracy are much wider. It also impacts those who are integral to the industry chain or serve as its input providers. This includes authors for whom less sales mean less royalties, distributors who receive lower distribution revenues and workers in the business chain for whom losses could impact their employability and earnings, amongst others.

Driving Forces for Piracy

The business of piracy is conducted in a clandestine manner and is driven by factors like popularity or need of a book, its availability in the market and price at which it is sold. Pirates operate under the same business economics which guide the legitimate publisher or distributor.

Before an attempt to estimate the levels of piracy is made, it is essential to know what piracy connotes in terms of the publishing sector.

With respect to the Indian scenario, it is important to understand the dynamics of piracy of books. According to a study, sponsored by the Ministry of Human Resource Development in 1999, on copyright piracy in India, piracy of literary works takes place in three principal ways – wholesale reprinting of text and trade books; unauthorised translations; and commercial photocopying of books/journals¹⁴. It notes that Journals/magazines and other periodicals are generally not pirated.

Piracy in the publishing of books has been a matter of concern for domestic as well as international publishers. It is well established that the book publishing sector in India is a victim of piracy which has resulted in revenue drag due to loss of sales of books.

¹⁴ Study on Copyright Piracy in India(1999), available at <http://copyright.gov.in/Documents/STUDY%20ON%20COPYRIGHT%20PIRACY%20IN%20INDIA.pdf>

The 1999 study¹⁵, lists out the key factors that promote piracy — the price of the book and its popularity. It stated that while piracy is generally confined to foreign and best-selling indigenous books because of their greater demand and high price, books published by NCERT, National Open Schools and Board(s) of Secondary Education are also pirated in large numbers due to the huge demand. It appears, therefore, that there is another dimension to the piracy of books — the non-availability or delayed availability of books, a typical phenomenon with regard to NCERT books which, despite a robust supply, often do not reach the desired users.

Piracy and the Publication of Books

The presence of the piracy market is difficult to define as it operates clandestinely in an environment that changes its modus operandi from time to time. Pirates do not follow a single course of operation and operate with a limited number of people to maintain their mobility.

The publishing sector in India is largely informal and unorganised. Irrespective of the nature of operations, the impact of piracy on the book publishing sector is profound as it cuts through the growth potential of the sector by affecting sales revenues and profitability. It also impacts the attractiveness of the market, making it less lucrative for writers and creative authors to invest the required time and effort to develop a book manuscript.

Based on various cases of copyright infringement handled by the Indian courts, the following can be considered as common ways of piracy (copyright infringement): unauthorized reproduction, unauthorized adaptation, violation of moral rights (using the name of the original author in the infringed copy), declaring publisher's name wrongly, infringing artwork of front and back covers of original books, exporting infringed books to other countries and importing copyrighted books without the consent of the right holder and changing or vitiating the original content. The Indian courts award damages in infringement cases. Infringing books of international publishers appears to be more common, based on the court cases. Indian publishers are becoming vigilant about book piracy and approaching police and courts for redressing the problem.

Piracy runs parallel to the legitimate publishing world. Piracy in book publication is essentially driven by two key factors: lack of customer awareness and apathy and weak enforcement.

¹⁵ Study on Copyright Piracy in India(1999), available at <http://copyright.gov.in/Documents/STUDY%20ON%20COPYRIGHT%20PIRACY%20IN%20INDIA.pdf>

- **Enforcement challenges:** The twin challenges of enforcement can be summarized as:
 - (i) Resource crunch of the state enforcement agencies leading to meagre resource allocation to these cases vis-à-vis other law and order issues which demand urgent attention. Lack of trained staff in modern or high tech surveillance is a major challenge facing most enforcement agencies; although pirates by nature are always one step ahead, the lag time of catch up among Indian agencies is much longer;
 - (ii) The time and complexity of taking cognizance by the enforcement agency, following through with prosecution and finally conviction vis-à-vis the punishment that can be imposed is not seen as a commensurate deterrent by the offenders. Indian courts have large numbers of pending cases which makes justice delivery a painfully long process defeating the very purpose of having a grievance redressal system.
- **Low customer awareness:** This is a significant contributing factor to Indian markets' susceptibility to grey operations. Studies show a lack of awareness of the extent of piracy activity across a variety of industries. Lack of knowledge of the significance of the problem is a crucial issue¹⁶. In India, the lack of consumer awareness has been cited as a major factor which encourages piracy. Piracy of books is also helped by uninformed or under-informed buyers who are unable to distinguish between the original and a pirated version of it.
- **Distribution inefficiency:** This is another reason which leads to piracy in the publishing sector. In the Indian publishing space, this trend is largely observed in the case of government publications. Distribution inefficiencies have typically impacted NCERT books, which despite their low prices, are pirated to a large extent. Non-availability of books at the retail stores on time creates an artificial scarcity which pirates have banked upon. It has provided the opportunity for grey market operators to step in and fill this artificial demand-supply gap through pirated books and pass-off products.

Because of the inability to meet the demand of the students, which in the case of students at the secondary and senior secondary levels is significantly high, pirates cash in on the time lag and push through with their versions. Distribution inefficiencies also have an impact on private publishers, although its impact is not as high as in government publications.

¹⁶ Association of Consumer Research, Product counterfeiting and manufacturers beware, available at <http://www.acrwebsite.org/search/view-conference-proceedings.aspx?Id=6411>

Scope and Approach of the Study

Estimating piracy is challenging because of the clandestine nature of this trade. Typically in the publication industry in India, estimating piracy levels is even more challenging due to limited information about the legitimate market itself. The publishing sector is largely unorganised in India, and information about it is limited and not comprehensively covered as part of government statistical records. Court cases have also been carefully studied to understand the nature of infringement of books in India.

The last time an attempt was made to measure piracy levels in the publishing of books was in 1999, in a study¹⁷ sponsored by the Ministry of Human Resource Development. Since then, the publishing industry has grown in size estimated in terms of its size. While there no comprehensive data is available on the size of the market, the growth has been significant. According to the NCAER study on parallel imports (January 2014)¹⁸, the Indian books market is valued at Rs 140000 million. Compared to this, the total turnover of the book publishing industry in 1997 was estimated to be Rs 12670 million¹⁹. Both the data, however, are based on industry estimates.

In the wake of stepped-up activity against piracy in the recent years, as evidenced by concerted attempts to act against piracy, it is important to have evidence-backed research which could help in informed regulatory action. Policy intervention is well directed only when it is backed by data. The significance of this study emanates out of the need to assess the economic impact in value terms.

This study attempts to fulfil the following twin objectives pertaining to the publishing industry:

- Estimate the size of the piracy market in the publishing sector
- Project the economic loss to industry and the government along with the consequent social impact due of piracy in publication of books

This study focusses on two major segments of the publishing industry in India – academic and non-academic, which together constitute a significant portion of the publishing market. With the objectives clear, the researchers had to develop a model which could be used to estimate the piracy levels in the publishing sector, keeping in mind the data constraints.

¹⁷ Study on Copyright Piracy in India (1999), available at <http://copyright.gov.in/Documents/STUDY%20ON%20COPYRIGHT%20PIRACY%20IN%20INDIA.pdf>

¹⁸ The Impact of Parallel Imports of Books, Films / Music and Software on the Indian Economy with Special Reference to Students (NCAER) ; January 2014, available at copyright.gov.in/Documents/Parallel_Imports_Report.pdf

¹⁹ Study on Copyright Piracy in India (1999), available at <http://copyright.gov.in/Documents/STUDY%20ON%20COPYRIGHT%20PIRACY%20IN%20INDIA.pdf>

Prior Research Propositions

The impact of piracy in the publication of books is not limited to the publisher or the distributor. It affects a multitude of stakeholders. This section reviews the academic literature and other studies to evaluate the economic effects of piracy.

Due to the clandestine nature of piracy, estimating and quantifying it is a difficult task in any product segment.

OECD, in its 2008 study titled, “**The Economic Impact of Counterfeiting and Piracy**”²⁰ estimated the impact of piracy in different product groups, employing data on interceptions and seizures by custom authorities in select countries.

The OECD study, while not specifically analysing the market for books, examined the principal factors leading to piracy in general. The magnitude of counterfeiting and piracy are largely defined by factors that motivate actors to produce or consume pirated products, and the institutional environment (legal, regulatory, economic and cultural) in which the counterfeiting and piracy production and/or consumption took place²¹.

According to the OECD study²², profit is the sole driving force. Lack of consumer awareness about the products also contributes to piracy. Lack of consumer awareness could be the result of unavailability of relevant information for the consumer; or an individual consumer’s inability to comprehend that information²³.

Effects of Piracy on the Economy: The OECD report describes the effects that counterfeiting and piracy have economy-wide, as well as the effects on rights holders, consumers and governments²⁴. Piracy affects employment at two levels: economy-wide and in affected sectors. Economy-wide, jobs shift from rights holders to infringing parties. The shift has implications for the welfare of employees as working conditions in clandestinely run illicit activities are often far poorer than those prevailing in recognised firms that value their employees and adhere to health, safety and other regulatory norms²⁵. However, in the Indian condition, due to high involvement of MSME, the realities may be different from that of the developed countries.

²⁰ The Economic Impact of Counterfeiting and Piracy; 2008, available at http://www.oepm.es/cs/OEPMSite/contenidos/ponen/InformeOCDE26feb09/2009_03_03_OECD_Study_on_Counterfeiting_and_Piracy.pdf

²¹ Ibid

²² Ibid

²³ Ibid

²⁴ Ibid

²⁵ Ibid

Among the losses incurred by original rights holders due to piracy include lower sales volume and prices; damaged brand value; lower royalties; less incentive to invest in new products and processes; and higher costs due to spending on efforts to combat piracy; and potential reduction in the scope of operations²⁶. The losses on these counts are largely difficult to estimate, though.

The impact of piracy on copyright industries is much deeper and with cross-economy impacts, as highlighted in certain studies. For instance, the study titled '**Copyright Industry Piracy to the U.S. Economy**²⁷' assessed the total cost of copyright piracy for the U.S. economy by looking at how piracy-induced changes in one industry affect other industries throughout the U.S. economy. The study, which used an analytical framework known as an input-output (I-O) table, showed the distribution of the inputs purchased and the outputs sold in individual industries. The study, which attempted measuring the direct and indirect effects put forth, argued that piracy reduces the need for the legitimate industry to purchase inputs from factor suppliers in other industries.²⁸ The total cost was estimated in terms of loss in output, jobs, employee earnings and tax revenues.²⁹ The approach, despite its holistic approach to arrive at an all-encompassing loss figure, is considered exaggerated. However, the study provides a significant understanding about the cascading effects of copyright piracy. From the perspective of the book publishing industry, it is significant to realise that piracy cuts through the potential gains not just for the economy but the entire value chain that is associated with the publishing business.

While the economic losses due to piracy are quantifiable, its impact on social factors is also significant but cannot be measured in value terms.

The study titled '**The Persistence of Piracy: The Consequences for Creativity, for Culture, and for Sustainable Development**³⁰' notes that piracy continues to plague authors, particularly in poorer countries where trade in pirated books often exceeds the legitimate market. It states that piracy negatively impacts creativity³¹. Noting that cultural and information industries form an important and well-recognised contributory component of the

²⁶ The Economic Impact of Counterfeiting and Piracy'; 2008, available at http://www.oepm.es/cs/OEPMSite/contenidos/ponen/InformeOCDE26feb09/2009_03_03_OECD_Study_on_Counterfeiting_and_Piracy.pdf

²⁷ Stephen E Siwek; The true cost of Copyright Industry Piracy to the US Economy; October 2007, at <http://cdm16064.contentdm.oclc.org/cdm/ref/collection/p266901coll4/id/2695>

²⁸ Ibid

²⁹ Ibid

³⁰ 'The Persistence of Piracy: The Consequences for Creativity, for Culture, and for Sustainable Development': Darrell Panethiere http://portal.unesco.org/culture/en/files/28696/11513329261panethiere_en.pdf/panethiere_en.pdf

³¹ Ibid

economic and cultural development of any country, it stated that such industries add considerably to national wealth and, therefore, pirate activities that undermine such industries have a corresponding effect on national wealth³².

No uniformity of methods to estimate piracy levels

That estimating piracy cannot happen in a straightjacketed manner was articulated by the United States Government Accountability Office (GAO)³³ stating that it is difficult to quantify the economy-wide impacts of counterfeiting because of varying assumptions on substitution of legitimate products with the pirated goods across industries. Each method of estimation has limitations due to of data availability and underlying assumptions and no single method can be used across industry sectors³⁴.

While much is known about the impact of piracy, most of which is through studies conducted in developed countries, is it actually of any use to apply such estimates upon developing countries? **Can the anti-piracy model for developed countries be emulated in developing countries?** This is of particular relevance towards understanding the limits of the regulatory framework in developing countries.

The underlying theory of copyright is one of balancing incentives³⁵. Regardless of the type of economy, the underlying economic theory that drives copyright is to respond to incentives in the same (or at least a very similar) way. Thus, independently of whether one attempts to establish an optimal copyright law in a developed country or in a developing one, the same basic theoretical trade-offs need to be considered³⁶.

So just what is the difference between the developed and the developing world? One important difference is that individuals living in developing countries have a lower per capita income, and thus have different budget constraints, and different opportunity costs to consider³⁷.

Issues relating to copyright violations cannot, therefore, be seen in isolation from the socio-economic realities of the countries where they apply. Regulatory intervention must, therefore, be nuanced, balanced and calibrated.

³² Ibid

³³ Observations on Efforts to Quantify the Economic Effects of Counterfeit and Pirated Goods, GAO, 2010

³⁴ Ibid

³⁵ An Empirical Analysis of the Economics of Copyright: How valid at the results of studies in developed countries for developing countries?, Richard Watt, The Economics of Intellectual Property, http://www.wipo.int/export/sites/www/ip-development/en/economics/pdf/wo_1012_e_ch_3.pdf

³⁶ Ibid

³⁷ Ibid

Indian Context

Replicating the research methodologies used in the developed countries to estimate levels of copyright piracy in India would be difficult in the wake of limited availability of data. The market for publishing of books in India is largely unorganised with a sizeable portion of the total output coming from the relatively small- and medium-sized entities.

Due to the lack of any centralised government estimates on the publishing sector, unlike the developed countries, piracy estimation needs to follow a methodical approach that will aid in deriving the estimated levels of demand and supply of the product. Generally, the illicit nature of counterfeiting and piracy makes estimating the economic impact of infringements extremely difficult, so assumptions must be used to offset the lack of data.

The lack of data makes it difficult to estimate piracy levels in India. Various industry estimates finds piracy levels to be varying from 21 % to over 50%, depending on the type of books³⁸. These figures are largely putative.

Studies have shown that piracy cuts down on the publisher's revenue in the form of lost sales. So far in India, the only study which attempted to numerically estimate piracy levels in the publishing sphere in India was done way back in 1999 in a study³⁹ sponsored by the Ministry of Human Resource Development. The study estimated the extent of piracy from the sale of pirated books as a proportion to the total sales. Here it is important to note that the 1999 study used limited government data, largely because data from other sources was not available.

Since then, the publishing industry has grown exponentially and perceived piracy levels have also kept pace. The study also looked at the principal ways in which piracy takes place.

The study used government statistics like the value of output in printing and publishing industry from the Annual Survey of Industries to estimate the value of production from the publishing sector. It banked upon perception surveys conducted among publishers and booksellers to estimate the extent of book piracy.

³⁸ Publishers estimate that any best-seller suffers from 50 to 60% piracy (refer: http://trade.ec.europa.eu/doclib/docs/2006/october/tradoc_130399.pdf; Study on Copyright Piracy in India (1999) quoted piracy in books publishing at 21 %

³⁹ Study on Copyright Piracy in India (1999), available at <http://copyright.gov.in/Documents/STUDY%20ON%20COPYRIGHT%20PIRACY%20IN%20INDIA.pdf>)

The research used a mix of qualitative indices to map the perception of the industry and stakeholders with regard to different forms of book piracy. The methodology used in the research, though consistent with the available data during that period, did not estimate the demand-supply gap measured in value terms, making it primarily a perception-based estimate.

While it is not prudent to deliberate upon the approach, it is believed that to solely rely on stakeholder response to arrive at piracy levels may not be comprehensive. The study, however, is path breaking in the sense that it came up with the piracy percentage at about 21% and the consequent trade loss suffered by the book publishing industry during 1996-97 to be about Rs 2660 million.

Developing an Approach for the Current Study

The study believes that grey market activities are essentially illegal and clandestine; such transactions are significantly difficult to analyse and estimate. There is no global standard or any one single established method of evaluating the spread of piracy and its impact on the economy and society at large. The methodology to be used, therefore, depends on the dynamics of the product market and availability of data with respect to its demand and supply.

Estimating piracy in the absence of proper data is a veritable challenge for any empirical study on piracy. Also, it is contingent upon several assumptions. Keeping both of these factors in mind, this study makes an attempt to estimate the piracy levels in the publishing sector in line with globally accepted research models. While this study is not the first one which makes an attempt to assess the impact of copyright piracy with respect to books, it is certainly the first where an estimation is attempted based on data estimates with respect to the demand and supply of books in the economy.

However, the study lacks comprehensive data sets which are quintessential to estimating the demand-supply gap in the market. While lack of data is a common problem for any study on piracy, the case in India is complicated in the case of the publishing sector in particular. Lack of adequate data relating to the publishing market size, number of market players and market segmentation are just few of the problems which this study had to grapple with.

The varying industry estimations on market size definitely could not be used as a benchmark for the purposes of this study. Naturally, it was difficult to estimate the total supply of books. This was essentially because a large segment of the publishing industry is unorganised with virtually no statistical estimates available on its operations or production.

In view of the data constraints, the researchers developed a methodology which after detailed deliberations and consultation with industry was found to be in synchronisation with the objectives of the study. It is pertinent to mention here that this study, since its inception, was clear that it would use government data as the primary basis for quantitative estimation rather depending on perception studies. The quantitative results were to be validated through industry inputs, which formed part of the qualitative assessment which has been used for this study.

The study aims to set forth estimates of grey market in the publishing sector based on the methodology explained in the following chapter. The study utilises government data for ascertaining production and consumption amounts across the publishing spectrum. Production or supply data has been compiled from three sources: ASI, registered MSMEs and import data; however, reconciliation of these data sources with other government data is beyond the scope of this research. On the other hand, the demand or consumption of educational books is measured on the basis of enrolment of students.

Any attempt to measure the gap in demand and supply involves certain assumptions and hence a study on piracy faces certain limitations.

Limitations of the Study

There is no global standard or established method of analysing or correctly evaluating the impact of piracy. The study uses certain assumptions at various stages of data analytic iterations that have been based on rigorous analysis and statistical tests. Any variation in assumptions and their interpretations may impact the results differently. Refinement of the measurement techniques used and expansion of efforts into other product areas could help to develop a more complete picture of the overall grey market.

The publishing sector in India is highly opaque in terms of its operational performance data. During the course of data collection, the authors found it increasingly difficult to access industry level data due to reasons ranging from non-availability to confidentiality. Therefore, the study used government data as the basis to derive the desired results. Irrespective of the conjectures that may appear difficult to comprehend, this certainly is the best available source of information. Despite these limitations, the value of the results of data analytics and interpretations should not be underestimated.

Methodology

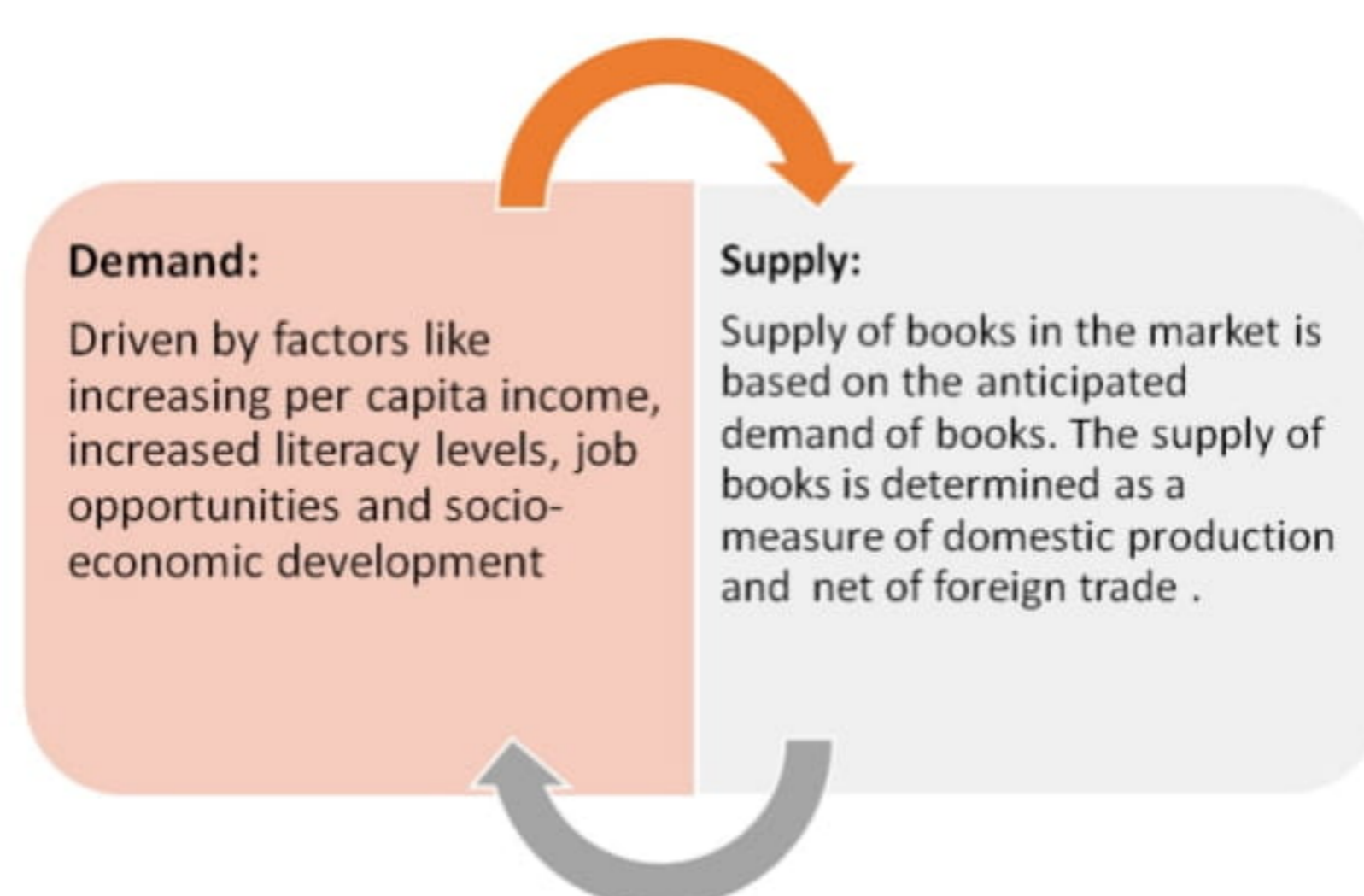
Any empirical study to estimate the piracy levels in the publishing sector faces two basic problems. The first is the limitation of data with regard to the market, and the second is the difficulty of drawing relevant assumptions to support the objectives of the study.

As elucidated in the previous chapter, the impact of piracy for any product is best measured as a differential between its total consumption and supply in the market. Drawing out this differentiation is, however, difficult due to lack of adequate data. In this section, we shall look at the methodology used to estimate the demand and supply side.

The current study is based on the economics of supply and consumption of books. The study attempts to estimate the piracy levels in the publishing sector based on the economic basis of supply and consumption of goods and services.

Taking into consideration the data constraints, the study uses a mix of data analytics and industry validation to assess the impact of piracy on the publishing sector. The overall approach and data analysis methodology followed to estimate the size of the piracy market is underscored as a differential between the total demand and supply of books, where it is considered that the unfulfilled demand is being met by a market which operates parallel to the main economy but is not accounted for.

The Figure below depicts the demand-supply equation in the publishing sector, and has been further dealt with in the following chapter.



Data Sources

The study adopted a methodical approach to assess the piracy estimates in the publishing sector. The study primarily relies on the secondary sources of data available from various government databases and reports for quantitative estimation of supply side and consumption of published books to measure the piracy level in publication of books.

Key sources of data for this study are annual survey databases of the Ministry of Statistics and Programme Implementation (MoSPI), Government of India. The Annual Survey of Industries (ASI) database of the Central Statistics Office (CSO) and National Sample Survey (NSS) database done by the National Sample Survey Office (NSSO)⁴⁰ on household expenditure of the MoSPI are key sources of information for this report. The NSS and ASI databases that are available were particularly worked up in detail to extract and analyse data related to the publishing industry.

The information was supplemented by data retrieved from Directorate General of Commercial Intelligence and Statistics (DGCIS) under Ministry of Commerce and Industries, census and annual reports of the Ministry of Micro, Small and Medium Enterprises (MSME), statistics and reports from Ministry of Human Resource Development (MHRD) and Planning Commission of India, annual reports of National Council of Educational Research and Training (NCERT), National Book Trust (NBT) and other governmental secondary data sources.

In order to validate the research results, as derived through data analysis, the study also incorporated industry perspectives on issues pertinent to the incidence of piracy. The reports incorporate primary information received from publishers of books, industry experts, publishers' associations and other relevant stakeholders for qualitative assessment and validation of the quantitative results.

The industry validation and analysis was based on a detailed questionnaire circulated among industry people; it also involved meeting industry representatives. The questionnaire probed the various aspects of how the industry perceives the threat of piracy and the perceived loss of sales due to piracy, apart from looking into the incidence of piracy.

Estimating Piracy Level in Publication Industry

The piracy level in publication of books industry is the "difference" between household consumption expenditure (derived from NSS data) and value of supply captured from sum of production from factories for domestic consumption (from ASI data), registered and unregistered micro, small and medium enterprises (from MSME data), net of foreign trade (import and export data from DGCIS) and publication by the governmental institutions and bodies (such as NCERT, NBT). The value of supply side has been adjusted to get values at the consumer level for estimation of piracy levels in the publication industry.

⁴⁰ The terms NSS and NSSO has been used interchangeably in this study

$$\text{Piracy Level (percentage)} = \frac{(\text{Total Consumption} - \text{Total Supply}) \times 100}{\text{Total Consumption}}$$

Based on our methodology,

Total Consumption Side:

- Annual consumption expenditure derived from NSSO from last 365 days' consumption

Total Supply Side:

- Gross sales value as per ASI
- Annual production amounts of MSME
- Net foreign trade of published books
- Gross sales value of government publications

Consumption Side Estimates on the Publication of Books

The study estimates the market of publication industry of books based on expenditure on books at consumer levels by the households from the data on household consumer expenditure survey of the National Sample Survey Office (NSSO) of the Ministry of Statistics and Programme Implementation (MoSPI).

The National Sample Survey Office (NSSO) conducts nationwide household consumer expenditure surveys and looks at the employment and unemployment situation covering the entire country at regular intervals as part of its "rounds". Each round normally is of a year's duration. These surveys are conducted through interviewing a representative sample of households selected randomly through a scientific design and cover almost the entire geographical area of the country.

The survey provides a time series data on household consumer expenditure that is one of the key sources of indicator on standard of living, social consumption level and disparity therein. NSSO collects data on household characteristics such as household size, principal and

secondary occupation, household type, religion, social group, land possessed/leased, land cultivated, land irrigated, primary source of energy, household ownership, ceremonies performed, number of meals served to outsiders and other items. For many items, NSS data is available for the last 30 days of consumption, while for others the data is available for the last 30 and 365 days.

For the NSSO survey, Household Consumer Expenditure (HCE) is measured as the **expenditure incurred by a household on the domestic front during a specified period⁴¹. A group of persons normally living together and eating food from a common kitchen constitute a Household** for the purposes of the survey.

The definition of Household Consumer Expenditure⁴² (HCE) given by the NSSO includes the following:

- (a) **expenditure incurred by households on 'consumption goods and services' during the reference period;**
- (b) **imputed value of goods and services produced as outputs of household (proprietary or partnership) enterprises owned by households and used by their members themselves during the reference period;**
- (c) **imputed value of goods and services received by households as remuneration in kind during the reference period;**
- (d) **Imputed value of goods and services received by households through social transfers in kind received from government units or non-profit institutions serving households (NPISH) and used by households during the reference period.**

Therefore, household consumer expenditure is the sum total of monetary values of all the items (i.e., goods and services) consumed by the household on the domestic front in a given period.

The definition also includes imputed values of goods and services which are not purchased but procured otherwise for consumption. In the context of our study, imputed goods include free textbooks provided by the Central and State Governments to elementary and secondary level school students.

Household Consumer Expenditure on Published Items

The NSSO survey covers household expenditure on books and journals in its item codes 400

⁴¹ NSS Report No.5 55(68/1.0/1'), Level and Pattern of Consumer Expenditure 2011-12, NSS 68th ROUND, MoSPI, Government of India, pg. 10.

⁴² NSS 68th ROUND, MoSPI, Government of India. Available at : http://mospi.nic.in/Mospi_New/upload/nss/ins68_sch1.0.pdf

and 401. Under the NSSO surveys of the 66th and 68th rounds, item code 400 covers the consumption of first-hand books and journals, whereas item code 401 covers consumption of all second-hand published items⁴³. For the NSS survey of the 64th round, only the total expenditure on books and journals has been provided without any bifurcation under item code 400⁴⁴.

It may be noted that under the NSS survey, all kinds of books, magazines, journals, including novels and other fiction books are covered. Therefore, household consumer expenditure under NSSO surveys provides expenditure by households in the entire country on both academic and non-academic published book items.

In this study, data from NSS 64th round, NSS 66th round, and NSS 68th round surveys, which covered the period July 2007 - June 2008, July 2009 - June 2010, and July 2011 - June 2012 respectively, were used for analysis. The consumption expenditure data for 365 days for the country was computed after using the multiplier effect as suggested.

The NSSO surveys provide total expenditure on books and journals. The details of items of NSS database of the survey considered for computation of expenditure on books and journals is given in Table 1 of Appendix- I. Total household expenditure on both first-hand books and journals for the year 2007-08, 2009-10 and 2011-12 are given below in the Table 2.

Item Description	2007-2008	2009-10	2011-12
Books and journals: first hand	296,430	406,320	575,390
Consumption of second-hand published items	12,350	17,390	23,920
Total Expenditure on Books and Journals	308,780	423,710	599,310

The total consumer market for first-hand published books and journals has grown significantly from Rs 296,430 million in 2007-08 to Rs 575,390 million in 2011-12. The expenditure by households on second-hand published items including books and journals is around 4% of the expenditure on books and journals.

⁴³ Level and Pattern of Consumer Expenditure, NSS Report No. 538(66/1.0/1)- NSS 66th Round, NSS Report No.5 55(68/1 .O/1)- NSS 68th Round, MoSPI, Government of India,

⁴⁴ Household Consumer Expenditure in India, 2007-08, NSS Report No. 530 (64/1.0/1), NSS 64th Round, MoSPI, Government of India

Based on industry sources and prior studies by NSSO, household expenditure on journals is considered to a limited portion of the total expenditure on books and journals. Based on this, the total consumer market for books published is given in Table 3. The total market for published books by this estimate includes both academic and non-academic books.

Year	Total Consumption Value (Rs. Million)
2007-08	222,320
2009-10	304,740
2011-12	431,540

Supply Side Estimates on the Publication of Books

In estimating the supply side of the publication of books, the study considers estimates of Annual Survey Industries, MSME sector, Net Foreign Trade (imports and exports) of books, and the publication, sales and expenditure by the government and its institutions (such as NBT, NCERT, etc.). Data from government sources is largely relied upon for estimating the supply of published books complemented by other secondary sources.

Supply Side as per Annual Survey of Industries

The Central Statistical Organisation (CSO) of the Ministry of Statistics and Programme Implementation (MoSPI) conducts the Annual Survey of Industries (ASI) to collect national data on manufacturing activity for each district.

The scope of ASI extends to all registered manufacturing establishments in the country with the exclusion of establishments under the control of the Defence Ministry, or establishments which perform sales or exchange. Annual Survey of Industries covers the entire Factory Sector comprising industrial units (called factories) registered under the Sections 2(m) (i) and 2(m) (ii) of the Factories Act, 1948.

'Factory', which is the primary statistical unit of consideration under the Annual Survey of Industries, is defined as 'any premises' wherein⁴⁵:

⁴⁵ Definition of Factories covered under ASI Annual Report 2011-12. Available at <http://www.csoisw.gov.in/cms/cms/Files/578.pdf>

(i) Ten or more workers are working or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on with the aid of power or is ordinarily so carried on, or,

(ii) Twenty or more workers are working or were working on any day of the preceding twelve months, and in any part of which a manufacturing process is being carried on without the aid of power or is ordinarily so carried on, but does not include a mine subject to the operation of the Mines Act, 1952, or a railway running shed.

The ASI data represents the supply side of the organised sector involved in publication of books. For the purpose of this study, the Gross Sales Value (GSV) data of selected products identified for domestic sales was used. The data (after giving multiplier effect as suggested by the CSO) covered two ASI surveys for the financial years 2007-08 and 2009-10. For ASI 2009-10, 21.61 lakh and for ASI 2007-08, 15.61 lakh data points were analysed. Details of items covered under ASI survey, for purpose of this study are provided in the Table 2 of Appendix-II. Required ASI data was extracted from Block J of the ASI data for years 2007-08, 2009-10. The values for the year 2011-12 were taken based on ASI estimates for the year 2007-2008 and growth estimate of the industry.

Year	Gross Sales Value (Rs. Million)
2007-08	21,480
2009-10	29,871
2011-12	41,520

Supply Side of Publication of Books in MSME Sector

The ASI data captures production of units registered under the Factories Act. However, in India, there are a large number of Micro, Small and Medium Enterprises (MSME) in the identified sectors. As per the MSME Development Act, a micro enterprise is an enterprise where investment in plant and machinery does not exceed Rs 25 lakhs, a small enterprise is one where the limit is between Rs 25 lakhs to Rs 50 million and a medium enterprise has investment values between Rs 50 million to Rs 100 million.

The census of registered MSME enterprises in 2006-07 reveals that 1365 enterprises involved in book publishing activity have employed 9474 persons. The average employment per enterprise of the MSME sector involved in the publishing sector is about seven. Therefore, the enterprises in the MSME sector involved in the publishing activities are not covered under definition of factories in the ASI. The study, therefore, believes that there is no overlapping in supply of published books in the ASI and MSME sector.

Out of the total 24.01 lakh units surveyed in 2006-2007 as a part of the MSME Census, only 22.48 lakhs were found relevant to MSME of which 15.64 lakh units were found to be operational, 4.96 lakh units were closed and 1.88 lakh units were not traceable. The survey results give details of the registered units, segregate such units into Micro, Small and Medium Enterprises and map their products into National Industry Code (NIC) classification. Out of a total of 15.64 lakh registered MSME units, the proportion of micro, small and medium enterprises is 94.94%, 4.89%, and 0.17% respectively⁴⁶.

The MSME enterprises have NIC code⁴⁷ of 2211 and 2219 publication industry of books⁴⁸. From a total of 15.64 lakh registered MSME units as per census of 2006-07, 1365 units are found to be involved in the publication of books. On the basis of the survey of unregistered micro, small and medium enterprises, out of a total of 34.6 million enterprises, around 30,000 units are estimated to be involved in the publication of books.

The study estimates the gross sales value of the book publication industry based on the inputs from MSME Census of 2006-2007 along with statistics obtained from the Annual Reports published by the Ministry of MSME supported by inputs from the organised sector involved in the publication of books.

Table 5. Supply Side Estimates of the Books Published by the MSME Sector	
Year	Gross Sales Value (Rs. Million)
2006-07	80,160
2007-08	94,510
2009-10	130,145
2011-12	178,969

⁴⁶ Final Report, Fourth All India Census of Micro Small and Medium Enterprises, 2006-07 Registered Sector

⁴⁷ As per National Industry Classification Code 2004

⁴⁸ Final Report, Fourth All India Census of Micro Small and medium Enterprises, 2006-07 Registered Sector

Supply Side of Publication of Books – Foreign Trade

The study adjusts the supply side publication of books for foreign trade. Both gross sales values of books imported and exported in India are taken into account to have net supply side of books in India.

The value of published books imported and exported has been taken from the data published by the Directorate General of Commercial Intelligence and Statistics (DGCIS) under Ministry of Commerce and Industry. Keeping in view that there could be variations in interpretation of codes across government agencies, a comprehensive account mapping and reconciliation exercise was done as a part of this study.

ASI 2009-2010 followed NIC 2008 containing 6,176 codes whereas ASI data for 2007-2008 followed NIC 2004 containing 5,466 codes. This was mapped and reconciled up to a 5-digit code classification for each code that was used. Import and export data follows the harmonic system code classification and for 2009-2010 a total of 10,050 codes were scrutinised up to the 8-digit level. This study uses 8-digit code classification import/export data for the years 2007-08, 2009-10, and 2011-12.

Year	Imports (Rs. Million)	Exports (Rs. Million)
2007-08	6,307.4	5,796.3
2009-10	4,837.1	7,006.1
2011-12	8,515.1	11,418.1

Supply Side of Government Publication of Books

The study, in addition to the supply side based on industry, micro-enterprise sector and foreign trade, considers the publication of books by governmental institutions such as NBT, NCERT, and state education boards. These organisations we believe are not considered under either ASI or MSME definition framework as these government institutions do not fit under such definitions. Further, the study also adjusts for the supply and expenditure on books by the government under its various programmes for providing education to students, particularly at school-level education.

National Book Trust (NBT)

The National Book Trust (NBT), India, is a body established by the Government of India. Publishing is the backbone of the NBT and it publishes books ranging from fiction books to medical books to science and technology books. The trust also publishes books for neo-literates and visually handicapped readers apart from those for regular readers. In 2012-13, NBT published a total of 1553 books in all the major 18 Indian languages⁴⁹.

National Council for Educational Research and Training (NCERT)

National Council for Educational Research and Training (NCERT), apart from other things, is significantly involved in the development of textbooks for different classes of school-level education, along with supplementary reading materials, publication of translated books, teachers' handbooks, teachers' manuals, etc. During the year 2012-13, NCERT released a total of 434 publications primarily catering to the needs of government schools. NCERT textbooks are extensively used in schools affiliated to the Central Board of Secondary Education (CBSE), Kendriya Vidyalayas (KVs), Jawahar Navodaya Vidyalayas (JNVs), Tibetan Schools and other public schools in the different Indian states. NCERT has a good network of over 340 wholesale agents spread all over India for distribution of its publications⁵⁰.

State Education Boards

The NCERT textbooks are freely adopted by states under their nationalised textbook programme. The state education boards, in order to bring uniformity in the education curriculum, have taken copyright from NCERT for publication and sale of NCERT books under NCF-2005.⁵¹ A total of 16 state education boards and councils have copyright for publication of NCERT books. The details of state education boards that have copyright for publication of NCERT books are given in Table 4 of the Appendix - II. The gross sales values of NCERT books published by the state education boards are estimated based on royalty received by NCERT on the account publication of textbooks by the state boards.

The estimates of supply side of publication of books of government institutions is given in the Table 7. The Gross Sales Values are based on annual reports of NCERT and NBT for 2007-08, 2009-10 and 2011-12.

⁴⁹ Annual Report 2012-13, National Book Trust, MHRD

⁵⁰ Annual Report 2012-13, National Council for Educational Research and Training

⁵¹ Annual Report 2012-13, National Council for Educational Research and Training

Year	NCERT	State Education Boards	NBT
2007-08	1,375	402.8	75.9
2009-10	1,248.80	83.8	96.6
2011-12	1,225.20	1,346.80	227.2

Publication and Expenditure by Government on Books

The study, in addition to publication of books by the government institutions such as NCERT and state education boards, also incorporates an adjustment for the publication and expenditure by the government in providing free educational books at school-level education. Both central and state governments spend a portion of their budget in providing either free or subsidised level of school education under programmes like Sarva Shiksha Abhiyan among others. Estimates of government publication and expenditure on textbooks for elementary (including middle level) and secondary school education are based on reports of Ministry of Human Resource Development and Government of India: Analysis of Budgeted Expenditure on Education⁵².

Year	Government Expenditure on Books
2007-08	17,551.50
2009-10	25,061.80
2011-12	36,766.00

Note: Detailed analysis of estimates of expenditure by Government (Central and States) on books at primary and secondary level education are provided in Table 7 of Appendix –III.

⁵² Analysis of Budgeted Expenditure on Education, 2005-06 To 2007-08 and 2009-10 to 2011-12, Department Of Higher Education, Ministry Of Human Resource Development, Government of India

Piracy in Publication of Books

The study, based on the derived research methodology, has estimated both supply and consumption side of published books. This “remaining difference” between consumption estimates and supply side estimates has been termed as “Market for Pirated Books” in India and has been expressed as a percentage of the total consumption expenditure on published books.

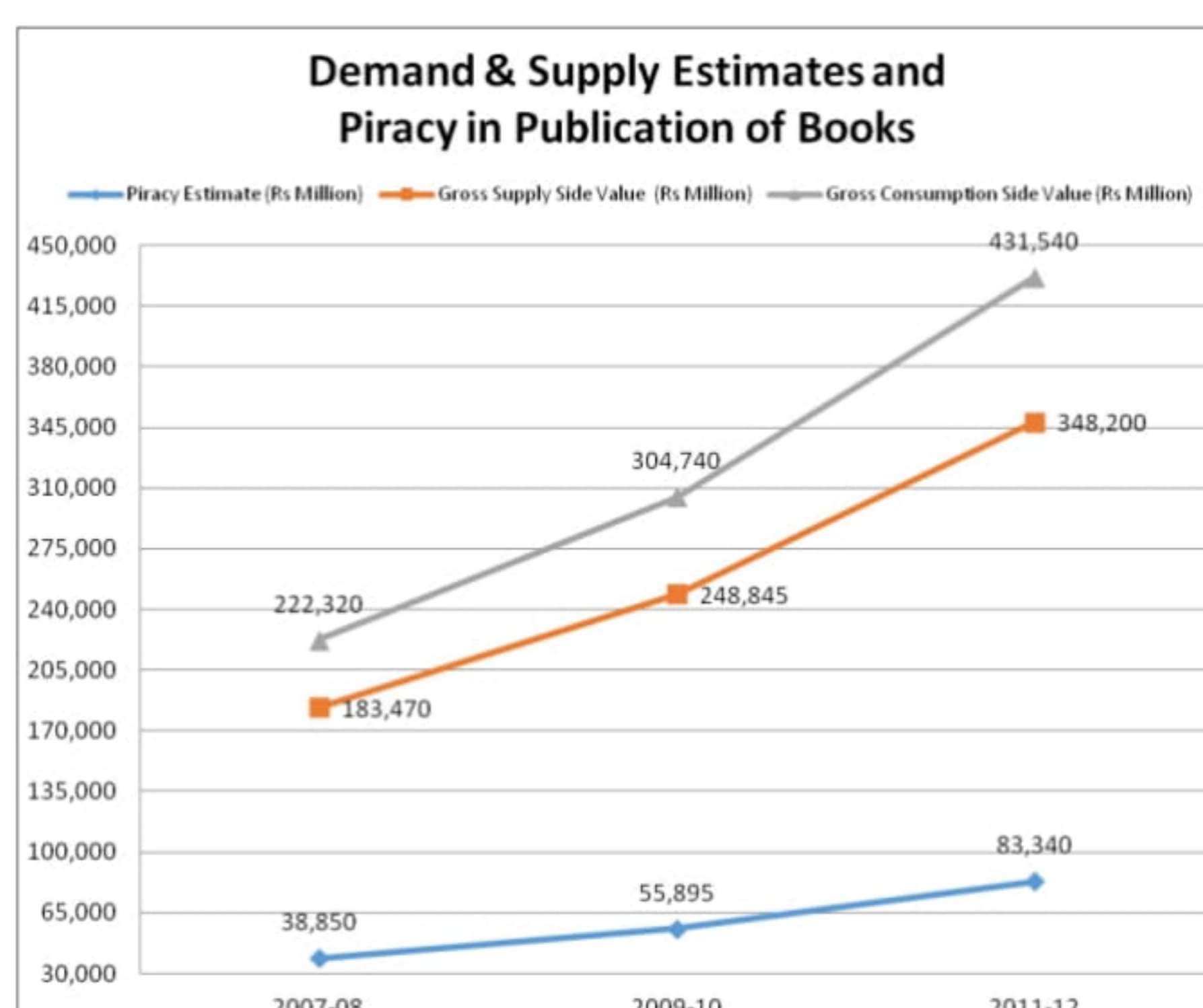
Piracy Level in Publication of Books (Percentage) =

$$\frac{\text{Difference between consumption and supply side of books published} \times 100}{\text{Overall expenditure (consumption) by all the households on purchase of books}}$$

Table 9. Piracy Estimates and Levels in the Book Publication Industry

Description	2007-08	2009-10	2011-12
Gross Supply Side Value : Consumer Level (Rs Million)	183,470	248,845	348,200
Gross Consumption Side Value : Consumer Level (Rs Million)	222,320	304,740	431,540
Piracy Estimate (Rs Million)	38,850	55,895	83,340
Piracy Level (Percentage)	17.47%	18.34%	19.31%

The study, based on supply and consumption side of published books, estimates the market for pirated books at Rs 38,850 million in 2007-08. The market for pirated books is more than double in 2011-12 in comparison to the 2007-08 estimates and is estimated at Rs 83,340 million. The percentage of pirated books is estimated to be 17–20% of the total market of published books.



Market of Academic and Non-Academic Books: Piracy Level Estimates

While it is a difficult proposition to segregate the overall publication and estimate the market of the academic and non-academic publishing sector of books, the study tries estimation of consumer market of academic and non-academic books based on the special NSS 64th round survey by NSSO (July 2007 – June 2008) to determine private expenditure⁵³ on education and books under the programme title 'Participation and Expenditure in Education'. The total consumer market for academic books is estimated by inclusion of public (government) expenditure on academic books at different education levels.

With respect to academic (educational books) publishing, the study estimates demand both by private expenditure on academic books as well as public expenditure in providing free or subsidized books.

The study, in order to estimate the total market of academic books, determines total expenditure on academic books by taking into account public (government) expenditure in providing free or subsidized books to students in government institutions in addition to private expenditure incurred by students on academic books. The study estimates private expenditure on books as a multiple of the total enrolment of students in a given year with the average expenditure on books at different educational levels and courses.

India has a multitude of higher education institutions, both government and private, which represent various curricula and expenditure levels on education. The difference really lies at school level education, where both Central and State Governments spend a portion of their budget for either free or subsidised level of school education. The expenditure of a student enrolled in a private school and one enrolled in a government school varies significantly as the government also incurs public expenditure in providing free education, which includes free textbooks too. Therefore, the study make a bifurcation of students enrolled in school-level education in government and private schools.

While the enrolment data of students is available without much difficulty, the challenge essentially was in estimating the average household expenditure on books by students. It was, therefore, agreed upon that the private demand for academic books would be estimated based on NSS data. While a detailed break-up of the expenditure patterns is not available under the normal NSS annual survey of expenditure, a detailed analysis of the

⁵³ Education in India: 2007-08, Participation and Expenditure, NSS 64th Round, MoSPI, Government of India

expenditure patterns on education is conducted every five years. The last such survey was conducted in the NSS 64th round (July 2007 – June 2008) under the title 'Participation and Expenditure in Education'.⁵⁴ This NSS survey on education expenditure (64th Round) was based on a sample of 445,960 persons from 100,581 households across the country.

Under the NSS survey of 64th round on education expenditure, education levels can be classified into the following categories⁵⁵.

School Education

- **Elementary School Education:** School education up to the primary level that includes study at classes in standards 1 to 5.
- **Middle School Education:** School education above the primary level that includes study at classes in standards 6 to 8.
- **Secondary/Higher Secondary School Education:** School education above the middle school level that includes study at classes in standards 9 to 12.

Higher Education

- **General Education:** Educational courses above higher secondary school education level for a normal university education for a degree.
- **Technical/Professional Courses:** Educational courses above higher secondary school education that involve hands-on training in addition to theoretical classes. Technical and Professional Educational courses commonly include Engineering, Medicine, Agriculture, Management, Chartered Accountancy, Cost Accountancy, etc.
- **Vocational Courses:** Educational courses after school, which aim at imparting training in very specific fields through providing significant 'hands-on' experience in acquiring necessary skills to students, which will make them employable or create for them opportunities of self-employment. The degrees/diplomas/certificates awarded

⁵⁴ Education in India: 2007-08, Participation and Expenditure, NSS Report No. 532, NSS 64th Round, MoSPI, Government of India

⁵⁵ Education in India: 2007-08, Participation and Expenditure, NSS Report No. 532, NSS 64th Round, MoSPI, Government of India, pg.1

by institutes which have recognition from the state/central government/public sector or similar employers are included under vocational education. Education courses that are offered by Industrial Training Institutes (ITI) and Polytechnics, etc. are examples of vocational courses.

The NSS survey of the 64th round on education provides the total private annual expenditure by students on education with item-wise breakup (such as books and stationary, tuition fee, transportation, private tuition, etc.) at various education levels in both government and private educational institutes. Table 5 of Appendix- III provides details of the annual private expenditure by students on education and particularly on books and stationary at different education levels in both government and private institutions. The enrolment of students in various educational courses has been retrieved from government sources supplemented by other sources⁵⁶ and given in Table 6 of Appendix- III. The total private expenditure on books at different educational levels and courses is arrived at by multiplying the average expenditure by students on books with the number of students enrolled at various educational levels and courses after adjusting for expenditure on stationery. The total private expenditure on books at various education levels is provided in Table 10.

The study, in order to estimate total market for academic books determines the total expenditure on academic books by taking into account public (government) expenditure in providing free or subsidized books to students in government institutions in addition to private expenditure by student on academic books. Both central and state governments spend a portion of their budget on providing either free or a subsidised level of school education. Estimates for government expenditure on education and textbooks at the elementary and secondary level are based on the report of Ministry of Human Resource Development, Government of India on **Analysis of Budgeted Expenditure on Education**⁵⁷. Details of public expenditure on education and books are given in Table 7 of Appendix –III.

The total market for academic books, based on both private and public expenditure for the year 2007-08, is computed and given in Table 10. The estimated market for academic books for the year 2007-08 is about Rs 130,202 million, which is around 60% of the total consumer market for books. Of this total market for academic books, elementary- and secondary-level school books constitute a significant portion. They constitute around 80% of the total market for academic books.

⁵⁶For student enrolment in schools and school enrolment data, data has been retrieved from website of department of School Education (DISE) , <http://www.dise.in/flash.htm>; For enrolment of students in higher education, data has been retrieved from the Ministry of Human Resource Development (MHRD), http://mhrd.gov.in/statistics_data?tid_2=239

⁵⁷ Analysis of Budgeted Expenditure on Education, 2005-06 To 2007-08 and 2009-10 to 2011-12, Department Of Higher Education, Ministry Of Human Resource Development, Government of India

Table 10 . Total (Private and Public) Expenditure on Academic Books at Different Educational Levels in 2007-08 (Rs. Million)

Education Level	Private Expenditure	Public Expenditure	Total Expenditure	Percentage
Elementary (Primary + Middle)	51,377.7	13,776.7	65,154.4	50.04%
Secondary/Higher Secondary	36,236	3,774.9	40,010.9	30.73%
General Education	15,813.2	NA	15,813.2	12.15%
Technical/ Professional	7,563.9	NA	7,563.9	5.81%
Vocational	1,660.2	NA	1,660.2	1.28%
Total Expenditure on Books	112,651	17,551.6	130,202.6	100.00%

The estimate for the market for academic books for the year 2007-08 provides a basis for estimating academic expenditure for other years. The market for academic books in 2011-12 is estimated to be at around Rs 258,900 million. Estimation of the market for academic books helps to us determine the market for non-academic books by deducting the academic book market from the total publication market of books. Using the basis of the ration between academic and non-academic books for 2007-08, the ration has been rolled forward to 2009-10 and 2011-12. Estimates of the market for academic and non-academic books for various years are provided in Table 11.

Table 11. Total Consumer Market for Academic and Non-Academic Books

Year	Academic Books (Rs Million)	Non-Academic Books (Rs. Million)
2007-08	130,202	92,118
2009-10	182,845	121,895
2011-12	258,925	172,615

Piracy Levels in Academic and Non-Academic Publishing Sectors

The piracy estimates mentioned in the previous section are based on cumulative basis for academic and non-academic publishing. Lack of proper segmentation of the publication market does not allow us to bifurcate the publishing industry into academic and non-academic books from the supply side. The government publications, through institutions like NCERT and state education boards, are primarily involved in academic book publishing for school education, while institutions like NBT are involved in publication of non-academic books. The hurdle to proper segmentation of academic and non-academic books on the supply side in publication lies in the organised sector (in ASI) and micro-enterprise sector, which do not provide any such details.

The study, therefore, estimates piracy levels in academic and non-academic books on the basis of industry feedback.

Piracy Levels Estimates:

- Academic books - estimated to be around 12-15%.
- Non-academic books - estimated to be around 22-25%.

Impact of Piracy in Publication of Books

The impact of piracy is two-pronged— direct and indirect. The direct impact of piracy in the publications sector comes in the form of losses borne for the immediate right holders, and losses incurred by the government as a consequence of the lowered earnings due to loss of sales.

Loss of Sales to Industry Due to Piracy in Publication of Books

Piracy hurts sale of books. The estimated loss of sales to industry is taken as estimated market of pirated books in India.

Loss of Sales to Industry = Estimated Market for Pirated Books

Year	Estimated Market for Pirated Books (Rs Million)
2007-08	38,850
2009-10	55,895
2011-12	83,340

Loss to Government on Account of Tax Losses

Piracy impacts the earnings of the government owing due to lesser income for publishers, distributors and the like. Taking that into consideration, piracy has a significant impact on the public exchequer as it leads to lowering of income for the not just the publishers but also distributors, retailers, and also the authors (who will see lowering of their income due to royalty).

The Tax Loss to Government is calculated on the basis of total sales loss estimate to the industry. It has been assumed that demand-supply gap could have been fulfilled by a mix of legitimate domestic factory and MSME production.

Revenue Loss to Government = Loss on account of Direct taxes in case entire gap is met by the legitimate manufacturers

The study takes no accounts of indirect tax loses to the Government as there are confirmatory incidence of Sales Tax and Excise Tax levied on sale of books. The Direct Tax Loss to government is on account of income tax collections otherwise possible on the profits that could have been generated by the legitimate manufacturers if the demand-supply gap was met by them. The additional profit is presumed would be taxed at the highest income tax slab rate applicable which is 33% under Income Tax Act 1961⁵⁸. This rate was applied on PBT to derive the Direct Tax Loss.

Table 13. Loss of Tax to Government on Piracy in Publication of Books	
Year	Estimated Tax Loss (Rs Million)
2007-08	3205
2009-10	4610
2011-12	6875

Apart from the losses with respect to sales revenue loss and loss of tax revenues for the government, piracy has an impact on other economic aspects, which are difficult to measure in quantitative terms.

Effect on local economies and employment

Measuring the impact of piracy on the economy in purely economic terms – as money lost by the industry and the government, is clearly a limited measure of its impact. The real impact goes much deeper as it affects the employability of the legitimate market segment which loses business due to piracy. The impact of piracy on employment loss is difficult to measure in a country like India and more so in a sector like the publishing industry which is largely unorganised. The impact is significant, even though it cannot be measured.

Without a doubt, piracy impacts the sales of the publisher. It is common knowledge that private entities, when they take a hit in their profits, usually attempt to cut down the losses through retrenchment or cutting down on the salaries of workers. Typically in the case of small sized publishing companies, violation of labour laws could be significantly higher as they are not bound by strong labour codes.

⁵⁸ <http://www.incometaxindia.gov.in/home.asp> last accessed on August 24, 2012

At the macroeconomic level, its effect is observed through lower investment levels in the economy, lower overall employment and a reduced rate of economic growth. It destabilises trade, discourages innovation and potentially restricts growth and competitiveness of an economy⁵⁹.

Increase in Economic and Organized Crimes

Those engaging in piracy could utilise the proceeds of their business into illegal activities and promoting organised crime networks. The real impact of such crime networks can be widespread leading to huge losses for the economy and the society. Trade in pirated products stimulates organised criminal activity and has consequential effect upon public and private corruption. The penetration of organised crime into otherwise lawful economic sectors also has a pernicious impact on public morality⁶⁰. Counterfeiting has attracted both organised and petty criminals who have not only derived huge profits from the trade but have also used it, both as a means to invest the proceeds of crime and to finance other crimes⁶¹.

Impact on Investments and Innovation

Piracy dampens investments in research and innovation. Essential to India's emergence as a knowledge economy is the need to build an environment of intellectual curiosity where new ideas are pursued. Piracy impacts the very basis of intellectual growth and development. Lack of faith by the rights holder over their ability to make reasonable gains out of their labour could bring down the investment cycle in the sector at large.

Social Impact of Piracy in the Books Segment

The impact of piracy in the publishing business goes beyond the economic loss incurred by publishers, distributors or the government. Piracy dents into the country's intellectual growth, creativity and a passion for research and writing. Not the least among its effects, piracy impacts the culture of education and learning.

⁵⁹ http://ec.europa.eu/internal_market/indprop/docs/piracy/final-report-cebr_en.pdf

⁶⁰ European commission impact of counterfeiting available at http://www.ecap-project.org/archive/fileadmin/ecapll/pdf/en/ipr_enforcement/customs_handbook/2_impact_on_counterfeiting_and_piracy.pdf

⁶¹ Economic Impact of Counterfeiting and Piracy, OECD, 2008

Effect on Creativity, Intellectual Development and Research

Publication of books, not excluding the economic considerations, carries a socio-cultural objective. Publication of books carries forward the passion of knowledge creation and dissemination. Piracy hurts at the very core of this passion. It makes investment in creative information industries less profitable, and more significantly, often may lead to disenchantment among the creative class. While effects such as the presumed absence of publications that might otherwise have been created are inherently difficult to measure, no one doubts their existence.

The cultural and information industries now form important and well-recognised contributory components of the economic and cultural development of any country. They add considerably to national wealth, therefore, pirate activities which undermine these industries have a corresponding negative effect on national wealth⁶².

Impact on Education and Learning

People have a tendency to buy products which are cheap. Typical in the case of publishing of books, students buy pirated books to save money. But at what cost? As has been found evident during the research, pirated books are not just poor in terms of quality, but are also incomplete. As has been seen in the case of NCERT books⁶³, pirated versions often change the content or have pages missing⁶⁴. All this jeopardises the very reasons for which students buy these books. It is evident that the motivation of pirates is only restricted to selling their version. Books are meant to be used as tools of education and knowledge. Piracy can destroy the content as pirates may publish erroneous or edited content, hence affecting uniformity of content especially in the case of schools text books. The impact on this aspect cannot be ignored in the overall impact analysis of piracy.

⁶² Darrell Panethiere; "The Persistence of Piracy: The Consequences for Creativity, For Culture, And For Sustainable Development," UNESCO Copyright Bulletin, July-September 2005 at, http://portal.unesco.org/culture/en/files/28696/11513329261panethiere_en.pdf/panethiere_en.pdf

⁶³ Based on interactions with NCERT officials

⁶⁴ Anonymous, "Pirated CBSE textbooks stuffed with errors available in Delhi", India Today, Available at <http://indiatoday.intoday.in/education/story/pirated-cbse-textbooks-stuffed-with-errors-available-in-delhi/1/352880.html>

Digital Publishing

Technological advancement with respect to internet technologies in India has resulted in the emergence of a new cultural paradigm which thrives on the dotcom way. This New Age phenomenon has created opportunities for digital publishing, which essentially in the case of books comes in the form of digitised versions of books or e-books.

Digital publication is closely linked to the internet age and driven by technological advancement with respect to information technology and promoted by a buoyant young population. The market for e-books in India is nascent. According to data by the Internet and Mobile Association of India (IAMAI) and IMRB International, as of June 2013, there were 130 million claimed internet users in India.⁶⁵ It notes that active internet user count could reach 136 million by June 2014⁶⁶.

Digital publishing has emerged as a major boost for piracy, as it can be easily done through scanned copies of files of publishers and later uploaded to numerous websites. With digital piracy part of the virtual space and the laws and the enforcement authorities being either lenient or reluctant to act upon the infringers, digital publishing has emerged as a clear threat for the industry.

Lack of public awareness and the lenient attitude of the enforcement authorities in India adds to the woes.

Drivers of digital publishing

Digital publishing is significantly different from physical publications. At the supply side, the decision of a party to supply pirated digital products is driven by factors related to:

- The market potential that includes personal motives that drive suppliers of the content,
- Technological considerations that facilitate reproduction and distribution of pirated content, and
- Institutional environment that determines relevant market risks⁶⁷.

Unlike the case of physical books, those who engage in supply of pirated digital products do not always do so to make a profit. It is essentially driven by a user's attitude to piracy and the presence of a reciprocity mechanism.

⁶⁵ Internet in India 2013, study by I-Cube, at http://www.imrbint.com/downloads/Report-BB55685%20IAMAI%20ICUBE_2013-Urban+Rural-C1.pdf

⁶⁶ Ibid

⁶⁷ Piracy of Digital Content' – OECD - 2009

Piracy of digital content is significantly different from traditional commercial piracy. Typically, as in the case of piracy of published materials, online piracy is frequently not committed for profit or other commercial gain. Further, online piracy cannot be wholly committed by a criminal enterprise, but instead requires the active participation, usually for profit, of legitimate commercial enterprises, either as facilitators of the piracy or as processors of illicit payments⁶⁸.

Supply Drivers of Digital Piracy	
Driving Factors	Characteristics favouring digital Piracy
Market Potential	
Attitude towards piracy	Permissive attitude towards digital piracy, social recognition, collectivism
Reciprocity mechanism	Mechanism imposing reciprocal behaviour
Profitability	Relatively high potential for profitability
Market exploitation (technology)	
Technological developments affecting: <ul style="list-style-type: none"> • Reproduction • Distribution 	Easy and cost-free reproduction Rapid growth of the internet, simple and quick distribution
Market risks	
Legal and regulatory framework	Difficulty in tracking, inefficient enforcement

Adapted from 'Piracy of Digital Content' – OECD⁶⁹

Demand for e-books

Factors driving demand for pirated digital products can be grouped into three sets, product-specific, individual and market-specific.

The key demand drivers of digital piracy can be elucidated from the 2009 OECD Study paper 'Piracy of Digital Content'.

⁶⁸ Darrell Panethiere; "The Persistence of Piracy: The Consequences for Creativity, For Culture, And For Sustainable Development," UNESCO Copyright Bulletin, July-September 2005 at, http://portal.unesco.org/culture/en/files/28696/11513329261panethiere_en.pdf/panethiere_en.pdf

⁶⁹ Stryzowski, P. and D. Scorpecci (2009), Piracy of Digital Content, OECD Publishing.
doi: 10.1787/9789264065437-en

Demand Drivers of Digital Piracy	
Driving Factors	Characteristics favouring Digital Piracy
Product-specific	
Content	Attractive Content
Technical quality	High technical quality or a copy
Consumption and storage	Easy consumption and storage
Price	Low or no price
Individual-specific	
Economic situation	Low disposable income (in case of young market participants)
Security awareness	Low awareness of potential malicious software risks
Attitude towards piracy	Permissive attitude towards digital piracy
Market-specific	
Product availability	Large availability of pirated digital content
Market risks	Inefficient legal infrastructure, lack of parental control

Adapted from 'Piracy of Digital Content' – OECD⁷⁰

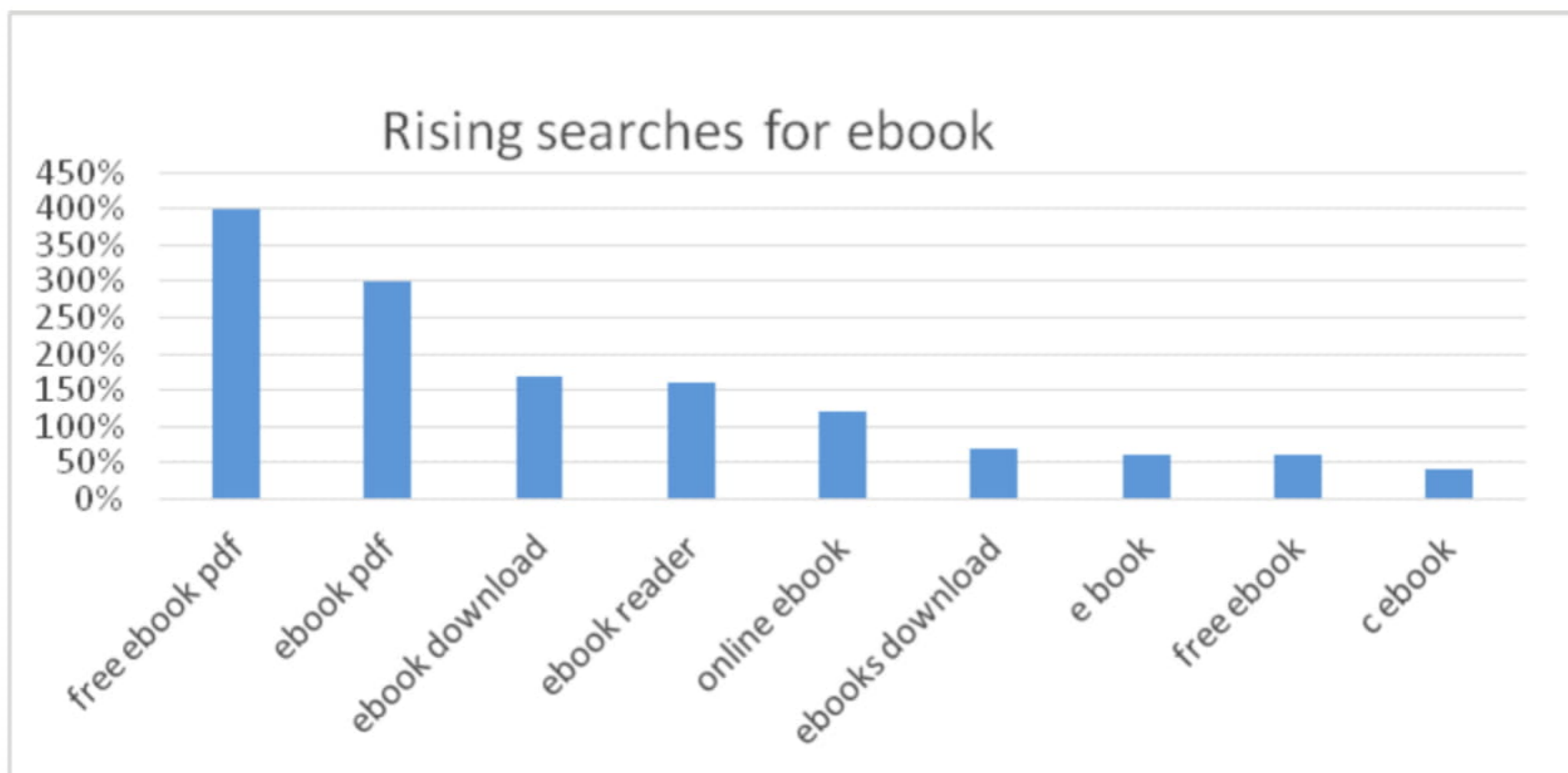
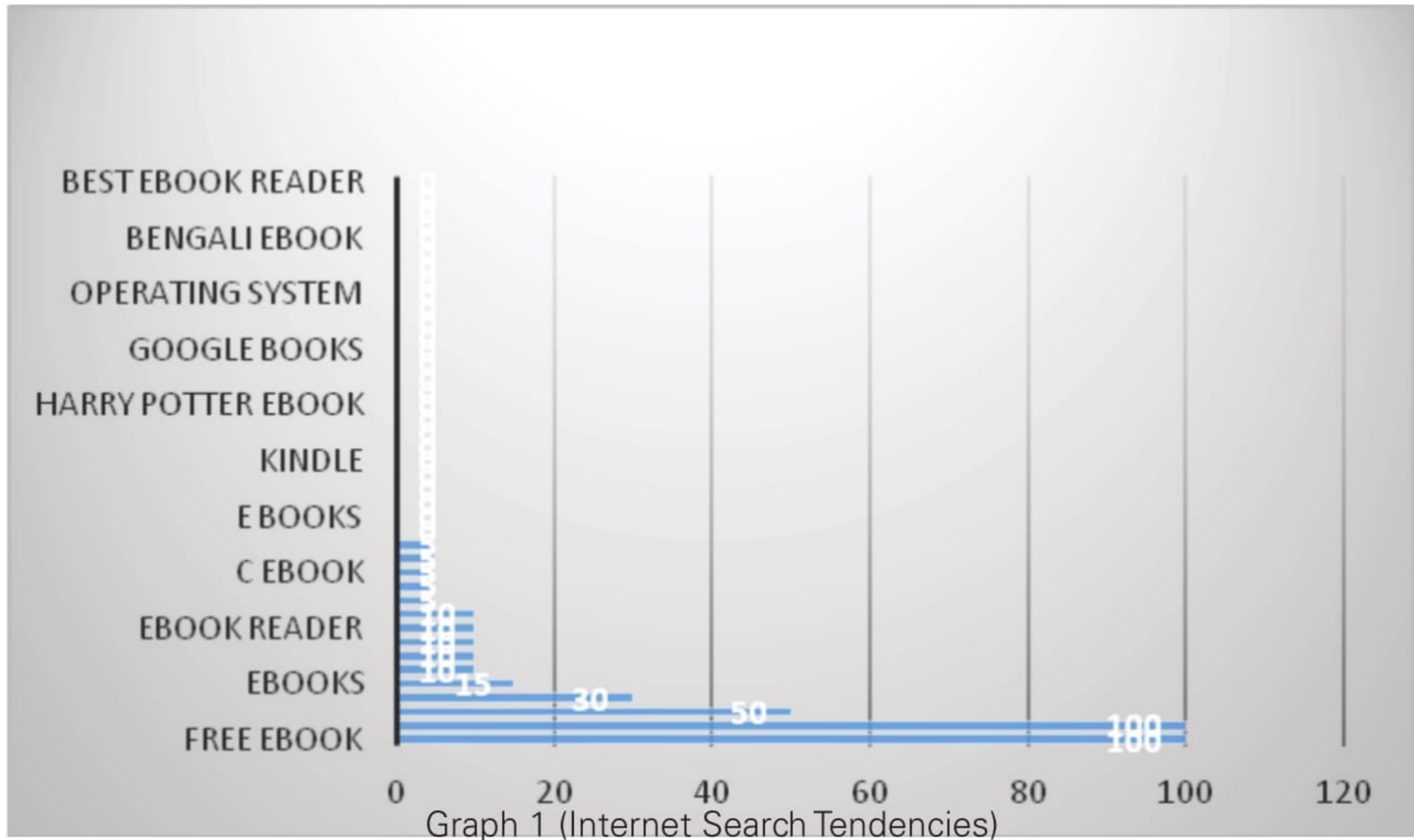
Specific to the Indian scenario, the following factors could be considered key to the e-books market in India; viz. Attitude towards piracy; Low level of awareness about infringements; Price; and Personal economic situation.

Assessing piracy levels in digital publishing is not possible through a quantitative matrix, primarily because there are numerous free downloading sites from which pirated digital content can be accessed. However, certain broad trends can be generated based on assumptions. Google has emerged as the potential go-to site for every internet user. One of the ways that could help understand downloads that take place is through Google Trends.

Two statistical trends as reflected in Google Trends would highlight in clear terms that there is a clear tendency among internet users in India to search for free e-books. While Google Trends cannot be used to appropriately map the demand, it is surely reflective of a growing tendency.

The search term 'ebook' highlights that internet users more frequently search for the term 'free ebook' and 'ebook download' and 'free ebook pdf'.

⁷⁰ Strykowski, P. and D. Scorpecci (2009), Piracy of Digital Content, OECD Publishing. doi: 10.1787/9789264065437-en



Graph 2 (Internet Search Trends)

In Graph 2, the highest recorded search term is 'ebookTorrent' (a medium used to download pirated books). The record is not highlighted as part of the trend graph as its growth is recorded as 'Breakout', which means that the search term experienced growth greater than 5000⁷¹%.

The tendency among internet users to download free ebooks is validated in the BISG Bowker's Global eBook Monitor (GeM)⁷², which as part of its survey found that 53% of respondents downloaded a free ebook in the past six months. The survey period was early 2012 and the survey, which was confined to the main cities in India had a weighted representative country sample of >1000 persons of 18 years and above.

It would appear that clearly there is a tendency among young internet users to download free books. To what extent books are downloaded is anybody's guess. Also, it assesses that the market potential for free downloads was unlikely to register any significant downward trend.

The research revealed that the typical ebook buyer in India is a college graduate, more likely to be male in the 25-34 years age group, working full time and living in a city. This perhaps explains another finding that the majority of books downloaded were either from professional/business categories or academic books/textbooks⁷³.

Based on the inferences as drawn from these reports, it would appear that there is an increasing propensity among internet users, especially the urban youth, to download books related to their study courses.

Supply of ebooks

Limited data is available which could throw light on the total supply of ebooks in India. The study looks to map the perception in the industry about the incidence of piracy with respect to digital publications.

⁷¹ Screen shot from <http://www.google.co.in/trends/explore#q=ebook&geo=IN>, accessed 11 April 2014

⁷² BISG Bowker's Global eBook Monitor, refer http://www.bowker.com/en-US/aboutus/press_room/2012/pr_03272012.shtml

⁷³ The Global eBook report

As perceived by the industry, the piracy element in digital publications is high for the more expensive reference books. For other segments, it is limited when compared to physical copies.

The incidence of piracy in the ebook segment is high for academic reference books, especially those related to post-graduation and higher education courses.

Based on responses received from industry, it is found that piracy in the case of e-books is so far limited in the Indian market. But looking at the risks that digital piracy bring with it, it is only prudent that industry in the wake of the risks facing the digital space and consider adopting technological interventions to counter the threat of piracy.

Recommendations

Piracy in the publication sector can be controlled through a calibrated approach, requiring government and the industry to work in consonance. Towards this objective, it is important to develop an understanding about the effects of piracy across all sections of the society and also develop mechanisms that act as a deterrence keeping in mind the ground realities of India.

In order to understand the obstacles faced by the industry as part of their anti-piracy initiatives, the researchers interacted with a large number of publishers and their associations to assess the core issues facing them. Based on the responses derived through written questionnaires and oral communications, the following observations are presented. Other factors contributing to the growth of piracy in the market is the limited success of enforcement agencies to create an effective deterrence level. In case of school books a defining reason for a thriving piracy market is the demand-supply mismatch in any academic year in which the supply of books especially from the government falls short of the demand and the gap is then filled in by illicit supplies.

Obstacles Faced in Anti-Piracy Measures

Enforcement Related	Consumer Preference Related
Lack of coordinated efforts between states and central government	Consumer indifference
Marginal penalties	Lack of awareness
Lengthy judicial process	Little or no knowledge about copyright laws
Resource constraint in enforcement agencies	Unwillingness to spend more on original books
Nexus between pirates and criminals	Inability to pay high price for books, especially in higher education segments

Based on industry responses received through questionnaire and oral evidence

Way Ahead

Based on the ground realities that drive piracy in India and considering the increase in the piracy levels, it would be appropriate to give priority to the following steps:

Action	Goal
Strengthening enforcement	Check supply of pirated books by creating greater deterrence
Public awareness and outreach on piracy of books and related copyright issues	Bring down acceptance and demand for pirated books among buyers (especially students)

Strengthening Enforcement

Effective enforcement against copyright violations should deter piracy. Enforcement action should be targeted and clearly directed. With the legislative framework in India on copyrights significantly strict, the following areas need to be redressed to bring effectiveness to the enforcement mechanism:

- Enforcement agencies, including police authorities, must be equipped, strengthened to administer and enforce copyright laws. Enforcement authorities should be provided regular training on latest trends and mechanisms in piracy. The courts need to be empowered to handle copyright cases. At an appropriate stage setting up of specialized IPR courts may be considered.
- Coordination between states and increasing checks at borders is very important so as to catch movements of such goods.
- Creating an effective deterrence mechanism and environment.
- Enforcement agencies such as police may be educated about different methods and techniques used in the piracy activities from time to time.

Public Awareness and Outreach

Consumer indifference and unawareness is considered a significant stumbling block to controlling piracy. Piracy is a phenomenon which is often driven by consumer apathy and lack of knowledge of copyright laws.

Among the measures which could effect change the attitude of students toward piracy are:

- Government and industry stakeholders' actively promoting public awareness campaigns on copyright piracy and its consequences for the economy, culture and society at large. Awareness campaigns should emphasise the social costs of copyright piracy and the impact it has on not just the economy and organisations but also on ordinary people. Publishers may highlight these aspects on their websites and through their newsletters etc.
- School boards could introduce awareness programmes on copyright violations as part of course curriculums, highlighting sections on benefits of copyright, negative effects of pirated books and ways to differentiate pirated books from original books.
- To popularise the importance of copyrights and its economic contribution, the government could utilise awareness mediums available within various departments of the government.

Conclusion

The spread of piracy in the publication of books has ramifications that go beyond the loss to business and has long lasting effects on nation building efforts. It stifles growth of intellectual capital, spread of uniform knowledge and contributes to corruption and criminal actions.

The notion that copyright piracy is a sinless crime has long since been disproved with evidence of its negative effects not only in the economic terms but also with respect to the social impact it creates. The control of piracy in publishing could come through innovative industry techniques and regulatory interventions.

Strong enforcement and public awareness are some of the important means to bring down piracy. An effective copyright regime will promote and encourage creativity, which in turn strengthens the fabric of the nation.

To this end, stakeholders need to see copyright beyond an economic asset, which transcends into social and human capital. **Piracy is not a victimless crime but a crime against society and the country.**

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Appendix 1: Consumption Side of Publication of Books

Sr.	Particulars	Data Series	Data Description	Relevant Data Item
1.	National Sample Survey (Round 68)	Household consumer expenditure for the period July 2011 to June 2012.	Block 9, : Item code, subsample code, Consumption value, multiplier, weight to be applied, NSS/ NSC code.	Item Code : 400 and 401
2.	National Sample Survey (Round 66)	Household consumer expenditure for the period July 2009 to June 2010.	Block 9, : Item code, subsample code, Consumption value, multiplier, weight to be applied, and NSS / NSC code.	Item Code : 400 and 401
3.	National Sample Survey (Round 64)	Household consumer expenditure for the period July 2007 to June 2008.	Block 9, : Item code, subsample code, Consumption value, multiplier, weight to be applied, and NSS / NSC code.	Item Code : 400

Appendix 2: Supply Side of Publication of Books

Sr. No.	Particulars	Description of Data Series	NIC Code	ASICC
1.	Annual Survey of Industries 2009-10	Block A, Block J ; NIC industry code, ASICC, multiplier, Gross Sales Value	NIC Code - 2008: 5811 5819	56104 Atlas 56111 Books 56112 Brochures
2.	Annual Survey of Industries 2007-08	Block A, Block J ; NIC industry code, ASICC, multiplier, Gross Sales Value	NIC Code - 2004: 2211 2219	56104 Atlas 56111 Books 56112 Brochures

HS Code	Description
49011010	Printed Books
49019100	Dictionaries/Encyclopaedias/ Serial Instalments
49019900	Other Printed Books etc.
49030010	Children's Picture Books
49030020	Children's Other Books
49040000	Music, Printed Or Manuscript Bounded
49059100	Other Maps Etc. in Book Form

Table 4. State Education Boards, Councils and Other Government Institutions having Copyright to NCERT Text Book Material for Publication

1.	Goa Board of Secondary and Higher Secondary Education
2.	Board of School Education, Haryana
3.	Government of Sikkim, Human Resource Development Department
4.	Bihar State Textbook Publishing Corporation
5.	School Education, Government of Uttarakhand
6.	Jharkhand Education Project Council
7.	Secondary Education, Human Resource Development Department, Government of Jharkhand
8.	Himachal Pradesh Board of School Education
9.	SCERT, Government of Kerala
10.	Director of School Education, Government of Andhra Pradesh
11.	Delhi Bureau of Textbooks, NCT Delhi, Delhi Government
12.	Board of School Education, Jammu and Kashmir
13.	Assistant Director of Education Textbook Bureau, Andaman and Nicobar Island
14.	NIVH, Dehradun
15.	Board of Secondary Education, Rajasthan
16.	Assam Higher Secondary Education Council, Guwahati

Appendix 3: Public and Private Expenditure on Academic Books

Table 5. Average Expenditure (Rs) on Books & Stationary and Total Education per Student Enrolled in Different Educational Courses for the year 2007 -08

Description	Institution Type	Avg. Expend on School & General Education- All levels (Rs)	Primary	Middle	Sec/ Hr. Sec	General Education (above Hr. Sec)		Technical/ Professional	Vocational
Books & Stationary	Government	382	152	314	767	1816	1696	3318	1570
	Private	2562	631	772	1127	1576			
Education	Government	1245	497	1025	2501.5	5919	7455	32112	14881
	Private	14619	3598.67	4404.67	6430	8991.67			

Enrolment Level	Government	Private	Total
Primary	100471519	33006432	133477951
Middle	32408830	18353943	50762773
Secondary/ Higher Secondary	20814523	23660953	44475476
General Education			10134594
Technical/ Professional			2477892
Vocational			1149417
Enrolment of Students at All Levels	242478103		

Education Budgets and Expenditure on Free/ Subsidized Books (Rs Million)	2007-08	2009-10	2011-12
Total Education Budget	1316620.6	1901360.74	2806008.1
Elementary Education	688832.7	955735.	1409009.6
Free books – Elementary Education @ 2%	13776.7	19114.7	28180.2
Secondary Education	37749	594712.5	858576
Free books – Secondary Education @ 1%	3774.9	5947.1	8585.8
Total Expenditure on Books – Elementary & Secondary Education	17551.5	25061.8	36766



Confederation of Indian Industry

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