
EDITORIAL NOTE

-Editors

The present issue consists of three articles which cover different facets of law ranging from competition law to arbitration and dowry protection. To solve different conundrums these articles seek to provide unique solutions through the application of Law and Economics.

In the paper titled “**Buyer Power, Exclusive Contracts, and Vertical Mergers in Competing Supply Chains: Implications for Competition Law and Policy**” Srishti Gupta presents an analysis and studies how the ‘buyer power’ of downstream firms has the potential of affecting market outcomes in upstream and downstream retail markets. The author studies the choice of firms between vertical mergers and Nash bargaining and places her findings through three cases of no vertical merger, single chain vertical merger and double chain vertical merger. It is found that joint profits of upstream and downstream firms are lowest when both channels choose vertical integration as compared to Nash Bargaining regime. The results are of relevance in the enforcement of competition law. The author posits that since competition law and policy is focused on the effects on consumer welfare, vertical mergers in the models are seen as welfare improving but upstream and downstream firms will not like to implement them as their joint profits are low in an integrated structure than in a structure where one firm is integrating while other is separated. The analysis shows that eventually, such exclusive contracts may have adverse effects on welfare.

In the paper titled “**The Rationale behind choosing Arbitration over Litigation: A Law and Economics Perspective**”, Priyansha Badoni and Dr. Faizanur Rahman addresses the contemporary question of choosing arbitration over the traditional method of dispute resolution - litigation. The growth of arbitration can be attributed to its stakeholders, namely the arbitrator(s) and the parties. These stakeholders want to derive maximum utility for themselves and all decisions made in the process are backed by economic considerations. The rationale guiding these decisions are looked through a Law and Economics lens. It is divided into five parts. The paper

explores the incentives available to the parties to choose arbitration over litigation, especially in the highly competitive market of competition between the two. This is also examined through the social costs of arbitration which determines whether arbitral award is a public good or a private good, thus bringing the paper to its logical conclusion.

In the paper titled “**Social Incentives and the Enforcement of Law: Some Reflections**”, V. Santhakumar has addressed the ineffectiveness of dowry control laws in India from a law and economics perspective. The author has delved into the social incentives to provide dowry, leading to an analysis of the private incentives for dowry givers as well as people who receive dowry. Two interpretations of the illegality of dowry have been discussed in detail. The author has also highlighted the importance of education in order to analyze the demand of the enforcement of dowry protection laws. The author concludes by highlighting the uses of these laws that make it ineffective, and how that can be remedied.

**ADVISORY BOARD OF THE GNLU JOURNAL OF LAW AND ECONOMICS
(VOLUME V – ISSUE I)**

DR. JUSTICE A.K. SIKRI: REID JUDGE, SUPREME COURT OF INDIA.

DR. JUSTICE D.Y. CHANDRACHUD: HON'BLE CHIEF JUSTICE OF INDIA.

PROF. (DR.) S. SHANTHAKUMAR: DIRECTOR, GUJARAT NATIONAL LAW UNIVERSITY.

PROF. (DR.) BIMAL N. PATEL: VICE-CHANCELLOR, RASHTRIYA RAKSHA UNIVERSITY, FORMER DIRECTOR, GNLU.

ARIEL PORAT: ALAIN POHER PROFESSOR OF LAW AT TEL AVIV UNIVERSITY & PRESIDENT OF TEL AVIV UNIVERSITY

DR. HANS – BERND SCHAFFER: AFFILIATE PROFESSOR – ECONOMIC ANALYSIS OF LAW, BUCERIUS LAW SCHOOL.

THOMAS ULEN: RESEARCH PROFESSOR, SWANLUND CHAIR EMERITUS, ILLINOIS COLLEGE OF LAW.

JAIVIR SINGH: PROFESSOR OF ECONOMICS, CENTRE FOR THE STUDY OF LAW AND GOVERNANCE, JAWAHARLAL NEHRU UNIVERSITY.

DR. RAM SINGH: PROFESSOR OF ECONOMICS, DELHI SCHOOL OF ECONOMICS, UNIVERSITY OF DELHI.

TOM GINSBURG: LEO SPITZ PROFESSOR OF INTERNATIONAL LAW, LUDWIG AND HILDE WOLF RESEARCH SCHOLAR, PROFESSOR OF POLITICAL SCIENCE AT UNIVERSITY OF CHICAGO LAW SCHOOL.

HENRIK LANDO: PROFESSOR OF LAW AND ECONOMICS, COPENHAGEN BUSINESS SCHOOL.

DR. AJIT MISHRA: PROFESSOR OF DEVELOPMENT ECONOMICS AND HEAD OF DEPARTMENT OF ECONOMICS, UNIVERSITY OF BATH.

SAUL LEVMORE: WILLIAM B. GRAHAM DISTINGUISHED SERVICE PROFESSOR OF LAW, UNIVERSITY OF CHICAGO LAW SCHOOL.

**EDITORIAL BOARD OF THE GNLU JOURNAL OF LAW & ECONOMICS
(VOLUME V- ISSUE I)**

EDITOR-IN-CHIEF

PROF. (DR.) RANITA NAGAR

FACULTY EDITORS

DR. HITESHKUMAR THAKKAR

PROF. (DR.) NUNO GAROUPA

STUDENT EDITORS

ADRIKA BISEN

KRISHNA AGARWAL

ANANT AGARWAL

ISHAAN GUPTA

MANSI SUBRAMANIAM

KHUSHI PAREKH

PRATYUSHA IVATURI

HRITVIK MOHAN

TABLE OF CONTENTS

- Buyer Power, Exclusive Contracts, and Vertical Mergers in Competing Supply Chains:
Implications for Competition Law and Policy *by Srishti Gupta* Pg- 1-24
- The Rationale Behind Choosing Arbitration Over Litigation: A Law & Economics Perspective *by
Priyansha Badoni and Dr. Faizanur Rahman* Pg- 25-39
- Social Incentives and the Enforcement of Law: Some Reflections *by Santhakumar* Pg- 40-47

**BUYER POWER, EXCLUSIVE CONTRACTS, AND VERTICAL MERGERS IN COMPETING
SUPPLY CHAINS: IMPLICATIONS FOR COMPETITION LAW AND POLICY**

Srishti Gupta¹

ABSTRACT

This paper studies how the buyer power of downstream firms can affect the market outcomes in both upstream manufacturing and downstream retail markets. In a two-tier oligopoly, where upstream firms are locked in a pair-wise exclusive relationship with their downstream retailers, we study the choice of firms between vertical merger and Nash Bargaining with two-part tariff regimes. On working with three cases of no vertical merger, single chain vertical merger and double chain vertical merger we find that joint profits of upstream and downstream firms are lowest when both channels choose vertical integration as compared to Nash Bargaining regime. We also find that Vertical integration is welfare enhancing because retail price will be minimum as upstream and downstream firms behave as a single entity. Hence for both single and double chain mergers, elimination of double marginalization is pro-competitive. These results have implications for the enforcement of competition (antitrust) law.

ACKNOWLEDGMENT

More extended discussion can be found in my working paper (Bhattacharjea and Gupta 2022).

Aditya Bhattacharjea & Srishti Gupta, Alternative Forms of Buyer Power in a Vertical Duopoly: Implications for profits and consumer welfare (Centre for Development Economics Working Paper No. 326, 2022). <http://www.cdedse.org/pdf/work326.pdf>

1. INTRODUCTION

The law and economics approach to competition policy uses the tools of economics to show how the interactions between firms may result in outcomes that are harmful to society, and how competition (antitrust) law can prevent such outcomes. In the marketplace, upstream and downstream firms come together to produce and distribute products and services to consumers. However, when the interests of these agents are not aligned they indulge in anti-competitive

¹ PhD Scholar, Delhi School of Economics, Delhi University, Email: srishti@econdse.org

practices like collusion or market foreclosure. Hence the Competition Act came into existence. The aim of Competition Act 2002 [“the Act”] is to increase competition in the market and to protect interests of the consumers in Indian markets against anti-competitive agreements, abuse of dominant position by firms, and any other restraint which affects social welfare. The Act focuses on four main segments:

1. Anti-competitive Agreement (Section 3)
2. Abuse of Dominance (Section 4)
3. Regulation of Combinations (Section 5 & 6)
4. Competition Advocacy and Reference (Section 49 & 21)

The first two segments aim at free and fair competition in the marketplace and impose penalties wherever there is a violation. Regulation of combinations focuses on screening of mergers and acquisitions and the last one creates awareness about the benefits of competition.

Section 3(4)(c) deals with exclusive distribution agreements where the supplier agrees to sell his product to only one distributor for resale in a particular territory. Section 3(4)(d) deals with refusal to deal which restricts by any method any person or firm to whom goods are sold. For instance, Case No. 03 of 2011 of *Shamsher Kataria v Honda Siels and Ors*² deals with a violation of these sections. In this case the automobile manufacturer entered into exclusive dealing agreement with his authorised dealers, hence not allowing the latter to procure the spare parts from anyone else. The case also deals with the manufacturers’ restrictions on upstream Original Equipment Suppliers (OES). OESs were prevented from supplying spare parts to independent repairing workshops. So, this violated section 3(4)(c) and (d) of the Competition Act.

Section 5 of the Act explains the combination where any merger or amalgamation of firms as per regulations prescribed by the CCI is considered as combination while section 20(4) of the Competition Act discusses various factors on basis of which a merger or combination between agents can have positive or negative effect on market competition. These factors include degree of countervailing power, nature and extent of vertical integration in the market and finally cost-

² *Shamsher Kataria v Honda Siel Cars India Limited and others*, (2011) Case no:03/2011.CCI. 1, 58.

benefit analysis of merger. For instance, CCI favoured the acquisition of 55.39% of total equity share capital of Magma HDI General Insurance Company Limited by Sanoti Properties LLP. Such combination between these two parties involved vertical overlaps (Combination Registration No. C-2022/04/917).³ Magma HDI General Insurance Company Limited is operating in upstream market of providing non-life insurance products or services in India while Sanoti Properties LLP operates in downstream market of distribution of these products or services. Another example of vertical overlap is acquisition by Worldone Private Limited of 96.42% equity shareholding in Jindal Power Limited where Jindal Power Limited functions in upstream market of power generation while acquirer performs in downstream market of distribution of same (Combination Registration No. C-2021/11/880).⁴ Another vertical combination is between TRIL Urban Transport Private Limited, Valkyrie Investment Pte Limited and Solis Capital Pte Limited who acquires 19.75% , 14.81% and 9.88% stakes respectively in GMR Airports Limited (Combination Registration No. C-2019/07/676).⁵ GMR is operating in the upstream market of operation and maintenance of airport while acquirers are performing in the downstream market of provision of air transport services (scheduled/ non-scheduled) and other retail services. In 2017 CCI received a notice of vertical combination between Bayer Aktiengesellschaft (the acquirer), Monsanto Company and KWA Investment Co, wholly owned subsidiary of Bayer (Combination Registration No. C-2017/08/523).⁶ In all above cases both the parties were performing activities relating to supply, distribution and sale of products or services at different levels of supply chain.

Of the above four cases of vertical overlap, the first two cases are not leading to vertical foreclosure as the market shares of merging firms are small and there is adequate competition in the upstream and downstream markets. While for the latter two cases there is threat of foreclosure as for acquisition of GMR group by Tata Sons group may lead to conflict of interest where acquirer has an incentive to create entry barriers for competing airlines and GMR is

³ Combination Registration No. C-2022/04/917, Order dated 17.05.2022. (2022). Competition Commission of India.

⁴ Combination Registration No. C-2021/11/880, Order dated 29.12.2021. (2021). Competition Commission of India.

⁵ Combination Registration No. C-2019/07/676, Order dated 01.10.2019. (2019). Competition Commission of India.

⁶ Combination Registration No. C-2017/08/523, Order dated 14.06.2018. (2018). Competition Commission of India.

having control in the market for provision of access to facilities. For the Bayer and Monsanto case, Monsanto had 98-100% market share in the upstream market for the licensing of Bt. cotton traits in India and thus had the ability to foreclose access to the product in downstream market. The CCI approved these mergers subject to the parties accepting certain conditions which would lessen the anti-competitive harms.

In our study we are formulating a model to find out how the downstream firms subcontracting to upstream firms, using their buyer power exploits the latter ones. To study this, we compare consumer surplus, profits of firms and social welfare under two regimes, namely, two part tariff with Nash Bargaining and Vertical Integration. Two-part tariff is a non-linear pricing mechanism where manufacturer sets wholesale price for retailer and a franchise fixed fee. In Two-part tariff with Nash Bargaining, since downstream firm have more buyer power, the fixed fee can be negative in this case. This negative fixed fee is called Slotting allowance which indicates power of retailers with scarce shelf space.⁷ Under vertical integration, firms integrate (merge) to form single entity. In our model we have shown that firms always prefer Nash Bargaining over Vertical Integration while consumers prefer vice-versa. We further study with one pair merged and the other pair unmerged whether consumers and integrated firms will benefit under this model, and whether there is an incentive for neither, one or both vertical pairs to merge. In each case, we examine the effect of bargaining power and degree of product substitutability on social welfare. Thus, while competition law usually assesses exclusive contracts and vertical mergers from the perspective of foreclosure of competition, in our model we can evaluate them independently.

2. LITERATURE REVIEW

Traditionally, in competition law and economics, heavy emphasis is given to horizontal market structure where the extent of competition between firms producing the same or similar goods, and their resulting market power, affects the prices, quality and variety of the goods they produce. However, in recent decades, the focus has shifted to vertical relations between firms and buyer power. Most products reach consumers after going through many stages in a vertical chain structure. In vertical relations, upstream firms (manufacturers) sell to downstream firms (retailers) which in turn sell their products to final consumers. The market power could be

⁷ L.M. Marx & G. Shaffer, *Slotting Allowances and Scarce Shelf Space*, 19(3) J. ECON. & MGMT. STRATEGY 575, 603 (2010).

equally distributed between upstream and downstream firms or either of them could have more market power. The increasing dominance of downstream retailers such as Wal-Mart and Toys “R” Us is not only because of their market size but also because of their increased buyer power which allows them to get favourable trading terms from their upstream suppliers. When large retailers are dominating, there is change in structure of power in supply chain.⁸ Even in India, online marketplaces like Flipkart, Amazon are expanding because of their quick services, and their ability to provide a lot of variety at one place which isn’t possible in offline market places.

Theoretically, in upstream manufacturer-downstream retailer model, buyer power involves ability of retailers to obligate manufacturers to provide more favourable contractual terms. These include requiring manufacturers to make lump-sum payment to the buyer to initiate or continue trading, most-favoured customer clauses and exclusive supply arrangements. Anticompetitive buying conduct by powerful buyers leads to a decline in the price of inputs they buy from sellers which in turn helps them in attaining monopsony power in the input market or market power in output market or both. There are many of definitions of buyer power. One approach is inverting the market power from seller side to buyer side and defining buyer power as ability of a buyer to maintain prices profitably below competitive levels. Buyer power can be defined as:

“[B]uyer power” refers to the circumstances in which the demand side of a market is sufficiently concentrated that buyers can exercise market power over sellers. A buyer has market power if the buyer can force sellers to reduce price below the level that would emerge in a competitive market. Thus, buyer power arises from monopsony (one buyer) or oligopsony (a few buyers), and is the mirror image of monopoly or oligopoly.”⁹

Though this approach is similar to monopsony power, there exists other definitions of buyer power which includes the notion of bargaining power. In case of monopsony power, the quantity purchased by a buyer is depressed.¹⁰ While in broader sense market power is also derived from various other actions by buyer. For example, mergers or price collusion of buyers,

⁸ Yanfei Lan, Haikuan Yan, Da Ren & Rui Guo, *Merger Strategies in A Supply Chain with Asymmetric Capital-Constrained Retailers Upon Market Power Dependent Trade Credit*, 83(C) OMEGA ELSEVIER 299, 318 (2018).

⁹ R. G. Noll, *“Buyer Power” and Economic Policy*, 72 ANTITRUST L. J. 589, 624 (2005).

¹⁰ Zhiqi Chen, *Defining Buyer Power*, 53 ANTITRUST BULL. 241, 249 (2008).

contractual requirements,¹¹ credible threat to take all or none from suppliers.¹² Bargaining power can be defined as "the power to obtain a concession from another party by threatening to impose a cost, or withdraw a benefit, if the party does not grant the concession."¹³ Hence bargaining power is different from monopsony power as the former deals with the threat to reduce the quantity buyers purchase while later is achieved by the act, not the threat, of reducing the quantity purchased. Some authors recognize both monopsony power and bargaining power as buyer power, Buyer power "includes both monopsony power and its kissing cousin, bargaining power."¹⁴

So, buyer power should include market power characteristics and should be interpreted as including both monopsony power and bargaining power¹⁵. Also, a firm's ability to bargain depends on its bargaining power relative to its rival buyers and relative to sellers in the upstream market.¹⁶

2.1. Classical Monopsony Case

In case of pure monopsony, there is a single buyer and sellers in the market have no market power. As a monopsony is mirror image of monopoly, monopsonist has buyer power in purchasing its requirements. However, monopsony is not beneficial for the economy as it leads to loss of efficiency and dead weight loss as shown in figure below. In the figure, if monopsonist acts as a perfectly competitive buyer and since seller doesn't have market power, the equilibrium in market is attained at the point where demand and supply curve intersect. Equilibrium price would be P1, Quantity would be Q1 and there is no dead weight loss to society. Under monopsony situation, the buyer will buy till that level of quantity where the marginal cost from purchasing one additional unit of input (MFC) intersects the market value of incremental output that input generates (Demand curve). Equilibrium outcome in this case

¹¹ 10 ROGER CLARKE, *BUYER POWER & COMPETITION IN EUROPEAN FOOD RETAILING* 9-21 (Edward Elgar Publishing 2002).

¹² J. B. Herndon, *Health Insurer Monopsony Power: The All-or-None Model*, 21(2) J. HEALTH ECON. 197, 206 (2002).

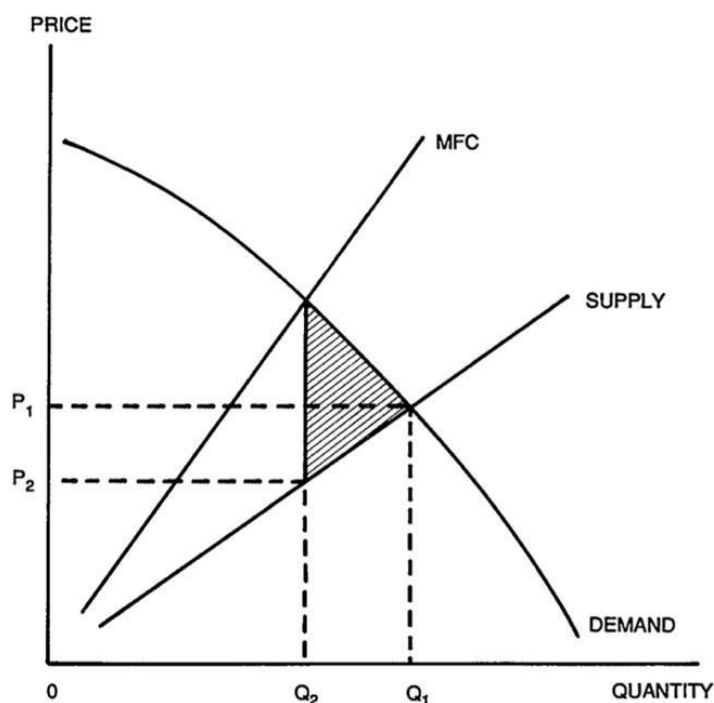
¹³ J. B. Kirkwood, *Buyer Power and Exclusionary Conduct: Should Brooke Group Set The Standards for Buyer-Induced Price Discrimination And Predatory Bidding?*, 72 ANTITRUST L. J. 625, 668 (2005).

¹⁴ Albert Foer, *Mr. Magoo Visits Wal-Mart: Finding the Right Lens for Antitrust*, 39 CONN. L. REV. 1307, 1331 (2006).

¹⁵ Zhiqi Chen, *Buyer Power: Economic Theory and Antitrust Policy*, 22 RES. L. & ECON. 17, 40 (2007).

¹⁶ Paul Dobson & Roman Inderst, *Differential Buyer Power and the Waterbed Effect: Do Strong Buyers Benefit or Harm Consumers?*, 28(7) EUR. COMPETITION L. REV. 393, 400 (2007).

is Q_2 level of quantity and P_2 level of price. The welfare loss to society is equal to the striped triangular area in below figure¹⁷



Source: Blair and Harrison (1991)

Since monopsonist extracts lower prices from its suppliers it is believed that this drop in monopsonist's cost will be beneficial to consumers with lower prices in monopsonist's output market. However, this is not the case as monopsonist will not necessarily pass on these lower costs because marginal costs are relevant for pricing decisions.

The prevalence of subcontracting in the manufacturing sector is a field which may potentially come under this model. Subcontracting can be defined as when a firm may choose to undertake all activities in its manufacturing process to subcontract a part of the manufacturing process to an outside firm. Subcontracting benefits both, the parent firm and contracting firm. Parent firms provide the small firms with raw materials, technology, product designs and the like, enabling small firms to perform well in terms of greater output and higher efficiency, while the larger

¹⁷ R.D. Blair & J.L. Harrison, *Antitrust Policy and Monopsony*, 76 CORNELL L. REV. 297, 338 (1991).

firms in return get the necessary end-product at a lower cost. But large firms could take advantage of small firms being big in size by delaying payments or affecting its efficiency.

In the literature, there is extensive discussion on how vertical separation is preferred over vertical integration by agents in the market. In a duopoly model at upstream and downstream level a vertically separated structure is preferred by a manufacturer because a vertically integrated firm will maximize profits with respect to its upstream marginal costs, whereas separation induces the upstream firm to set its wholesale price above marginal costs, and this makes it optimal for the downstream firms to set higher prices that enable them to exploit the strategic complementarity of prices under Bertrand competition in the final goods market¹⁸. In a model with two-part tariff where there are two manufacturers each supplying a single differentiated product and a downstream industry consisting of single or multiple retailers. Manufacturer's decision to vertically integrate or not depends on the degree of product differentiation¹⁹. When products are differentiated, then vertical integration is preferred by manufacturers while when products are close substitutes, vertical separation is preferred²⁰. Within vertically separated structures, firms have a preference for exclusive trading over non-exclusive trading. Supplier exclusion can take place if slotting allowance is identical across suppliers where their model includes two upstream supplier and one downstream retailer²¹.

Even though vertical separation is profitable for upstream and downstream firms depending on their bargaining power, a vertical merger between upstream and downstream firms leads to the elimination of double marginalization (EDM) which arises when an upstream firm adds its mark-up to marginal cost and the downstream firm adds mark-up to wholesale price. With a vertical merger, EDM allows reduction in retail prices to consumers and consumers get better off. However, the vertically merged firm is also likely to raise the price of the input to downstream rival firms as this will induce them to charge higher downstream prices which hence increases its own profits. This theory is called Raising Rival's Cost Theory (RRC). RRC and EDM are inseparable in equilibrium, and it is the size of EDM which determines the

¹⁸ G. Bonanno & J. Vickers, *Vertical Separation*, 36(3) THE J. INDUS. ECON. 257, 265 (1988).

¹⁹ Y. J. Lin, *Oligopoly and Vertical Integration: Note*, 78(1) AMERICAN ECON. REV. 251, 254 (1988).

²⁰ P. Cyrenne, *Vertical Integration Versus Vertical Separation: An Equilibrium Model*, 9(3) REV. INDUS. ORG. 311, 322 (1994).

²¹ Y. Shen, *Platform Retailing with Slotting Allowance and Revenue Sharing*, J. OPERATIONAL RES. SOC'Y 1, 13 (2018).

magnitude of RRC²². Competition Commission of India (CCI 2021) studied the telecom sector of the country for the past five years and found the existence of vertical integration between telecom companies and OTT service providers, where telecom companies' revenue increased with increased data consumption because of OTT services and this led to more customers for OTT service providers and increased revenues for them. Even though such integration is welfare improving for consumers, these partnerships affect market competition by creating entry barriers for vertically separated firms both in telecom companies' market and among OTT service providers²³.

A study on 31 empirical studies on vertical integration and its effect on market outcomes gives mixed evidence, wherein some studies confirming the harmful effect of vertical integration on competition while others were supporting it²⁴. Introduction of buyer power has some welfare implications. For example, downstream firms can influence the nature of competition in the supplier markets, reduce inter-brand competition between manufacturers and intra-brand competition between them, and reduce the quantity sold to final consumers. When downstream firms have scarce shelf space, two-part tariff with Nash bargaining regime involving slotting allowance can improve social welfare by efficient allocation of goods. Under asymmetric upstream firms, fringe rivals could be overpowered by a dominant firm and this could lead to inefficient allocation. However, they could be beneficial as they could promote supplier innovation in terms of quality and investment in goods; different promotional strategy in different markets, and economies of scale in distribution²⁵. Powerful buying firms can actually keep prices low for final consumers by exerting 'countervailing power' against powerful producers²⁶. However, critics point out that they may also use their power to increase the price to the final consumer.

²² G. Das Varma & M. De Stefano, *Equilibrium Analysis of Vertical Mergers*, 65(3) ANTITRUST BULL. 445, 458 (2020).

²³ Competition Commission of India, *Market Study on the Telecom Sector in India*, (2021).

²⁴ Marissa Beck & Scott Morton, *Evaluating the Evidence on Vertical Mergers*, 59(2) REV. INDUS. ORG. 273, 302 (2021).

²⁵ Greg Shaffer, *Slotting Allowances and Optimal Product Variety*, 5(1) B.E J. ECON ANALYSIS & POL'Y 1, 28 (2005).

²⁶ J.K. GALBRAITH, *AMERICAN CAPITALISM: THE CONCEPT OF COUNTERVAILING POWER* (Houghton Mifflin, New York 1952)

So, we relax this assumption of firms trading through a predetermined regime and extend the study by making firms choose between a two-part tariff with the Nash Bargaining regime in exclusive trading agreements, and vertical integration. By doing so, we aim at filling the research gap regarding the choice between vertical merger vs different degrees of buyer power. So, we incorporate downstream firm's buyer power and study its impact on retail prices and social welfare under different regimes. To keep the analysis simple, we rule out RRC effects and investments or sales promotion strategies.

3. MODEL

In our model, we are studying a vertical structure where each upstream firm exclusively trades with a downstream firm. We aim at finding out how more market power with downstream firm influences social welfare. Since downstream firms have more market power than upstream firms, we can say they have more buyer power. Hence, in our research, we are studying the impact of buyer power on the profits of upstream and downstream firms.

We begin with a vertical setup where two upstream firms supply goods to two downstream firm for selling to consumers. We denote (U_1, U_2) as upstream duopolies and (D_1, D_2) as downstream duopolies. Denote by q_i the output level of final good supplied by downstream duopolies $i, i=1,2$.

Consumer's demand for final good is linear²⁷ with slight change in notations denoted as:

$$q_i = a - bp_i + \gamma p_j \quad i, j = 1, 2 \quad ; a, b > 0$$

Here, q_i is the quantity of good i sold by downstream firm i at price p_i . p_j is the price of good sold by downstream firm j . The coefficient of p_i is negative confirming the inverse relationship between price of good i and quantity of good i . The coefficient for price of good j is positive suggesting that both goods are demand substitutes. If p_j increases, consumers will prefer to consume more of q_i as good i has become relatively cheaper. The product differentiation and inter-brand substitutability is captured by parameter γ/b in the direct demand function. We

²⁷ N. Singh & X. Vives, *Price and Quantity Competition in a Differentiated Duopoly*, 15 RAND J. ECON. 546, 554 (1984).

assume γ/b lies between 0 and 1. When γ/b approaches 1 it implies products are close to perfect substitutes. However, results are not defined for values of $\gamma=1$, therefore we are bounding γ strictly less than 1 in all our following derivations. When γ/b approaches to 0, the indirect demand function reduces to

$$p_1 = \alpha - \beta q_1$$

Which shows that products are demand-independent. Each manufacturer is assumed to have constant and identical marginal costs, denoted by c . Imposing the restriction $c > 0$ prevents the price of the goods from falling to zero, which would absurdly give the same result as the case of demand independence in equation (1) if $p_j = 0$. Each downstream firm uses one unit of output of an upstream firm to sell one unit to the final consumers. We set up a downstream firm's cost as cost of purchasing goods from manufacturer at wholesale price. Downstream firms do not provide any retailing services (for example after sale services or promotional services). This allows us to assume that costs incurred in retailing are zero. It also abstracts from the problem of horizontal and vertical externalities arising from retailers' sales efforts, allowing us to focus on comparing different kinds of relationships between upstream and downstream firms. Downstream firms compete by simultaneously setting prices, i.e. as a Bertrand duopoly in differentiated products.

We will be discussing three cases. In case 1, two upstream firms are selling products to two downstream firms exclusively under Nash Bargaining with two-part tariff regime. In case 2, each upstream firm vertically integrates with a downstream firm under Vertical Integration regime. In case 3, we have one channel of upstream and downstream firm vertically integrated while the other is following the Nash bargaining with two-part tariff regime. In all three cases, the contract terms between the upstream- downstream pair are observable to the rival pair.

3.1. Case I: Neither channel is integrated

Each downstream firm's shelf space is assumed to be scarce. Hence, each firm stocks goods of at most one of 2 manufacturers, either U_1 or U_2 but not both. Since shelf space is restricted with downstream firms, this gives downstream firm, buyer power to choose amongst manufacturers leading to exclusive trading. This setup provides one justification for an exclusive trading arrangement between each pair of upstream and downstream firms. No downstream firm who is selling the product of one upstream firm will want to switch to the other supplier, because then it will be competing against the other downstream firm for the same product, which will

result in the Bertrand Paradox with zero profits.

An alternative explanation of exclusivity is that each upstream firm produces a different specialized intermediate input which is further processed or assembled by a downstream firm that sells directly to consumers, for whom the two goods are imperfect substitutes. Downstream firms have to specialize their technology to process/assemble the product of a particular upstream supplier, so the upstream firm cannot switch to the other downstream firm, or any other potential downstream entrant. Similarly, each downstream firm cannot switch to a different supplier. Exclusive trading therefore involves exclusive supply agreement between a downstream firm and a manufacturer as shown in figure 1 below:

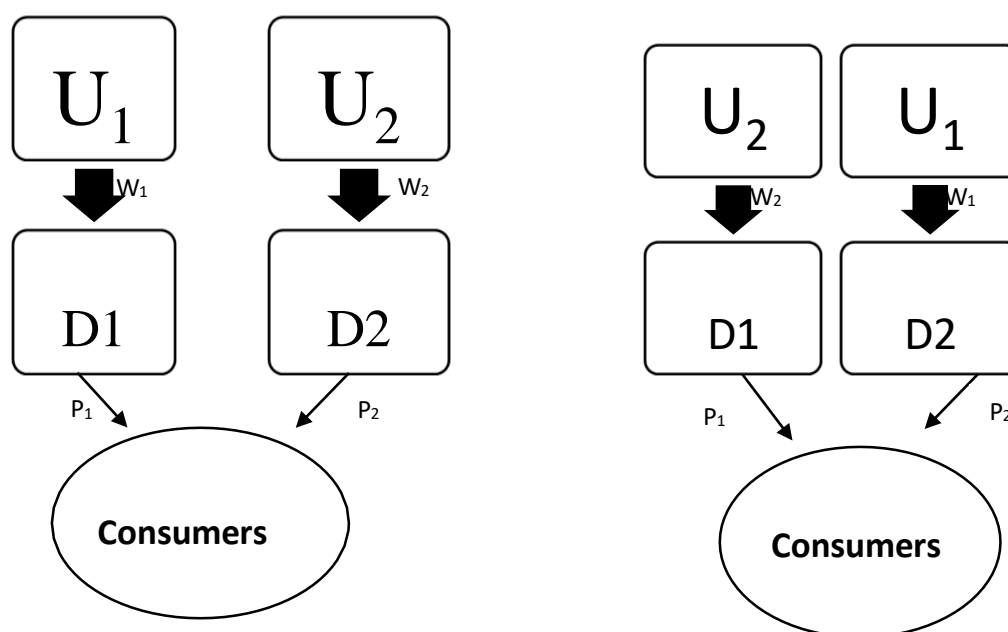


Figure 1. Possible assortment in Exclusive Trading contract

In Figure 1, w_i stands for the wholesale price which the downstream firm pays to upstream firms for goods purchased and p_i stands for the retail price which consumers pay to downstream firms for goods purchased. The configuration in the two left pairs is an alternative to those in the two right pairs. Such configurations are sometimes described in the literature as “supply chain or channel competition”.

Following contractual sets are possible between upstream and downstream firms (U_1, D_1) , (U_1, D_2) , (U_2, D_1) & (U_2, D_2) . We are assuming (U_1, D_1) & (U_2, D_2) sets hold true in all vertical regimes and profits of downstream firm 1 are more when he sells good from manufacturer 1

compared to manufacturer 2 ($\pi_{D1}(U_1) > \pi_{D1}(U_2)$). In fact, with either of the two alternative explanations of exclusivity discussed above, if downstream firm 1 sells a product from manufacturer 2 he will make zero profits i.e, $\pi_{D1}(U_2) = 0$.

Because of buyer power, slotting fee is also a possibility in our Nash Bargaining regime where each downstream firm imposes slotting fee contract of type (w, S) where w is wholesale price that downstream firm pays to manufacturer for each unit of his product downstream firm buys from him and S is slotting allowance, a fixed amount independent of number of units bought from the manufacturer. It represents a slotting fee paid by the manufacturer to downstream firm, which can be regarded as the mirror image of a franchise fee paid by the downstream firm to the manufacturer. The set-up of the optimization problem for Nash bargaining regime is briefly outlined below, followed by the major findings.

3.1.1. Two-part tariff with Nash Bargaining

The equilibrium of bargaining between manufacturer and downstream firm is given with input price w_i and slotting allowance S by the following maximization problem:

$$\operatorname{argmax}_{w_i, S_i} \{ (\pi_{U_i} - \pi_{U0})^\mu (\pi_{D_i} - \pi_{D0})^{1-\mu} \}$$

For the upstream firm, i the disagreement payoff (π_{U0}) is obtained as the profit it gets by selling to downstream firm j and similarly for downstream firm the disagreement payoff (π_{D0}) is calculated as the amount of profit it receives when trading with upstream firm j . For simplicity, we have taken disagreement payoffs of both manufacturer and downstream firm equal to zero. In above expression, μ defines the bargaining power of upstream firm and $(1-\mu)$ is bargaining power of downstream firm. As long as μ lies between 0 and 0.5 downstream firms have more bargaining power than upstream firms. If μ lies between 0.5 and 1 then upstream firms have more bargaining power than downstream firms.

First order conditions on maximizing above problem for w_i and S give:

$$\frac{\partial \pi^D}{\partial w_i} + \frac{\partial \pi^U}{\partial w_i} = 0$$

$$S = (1 - \mu)\pi^{Ua} - \mu\pi^{Da}$$

Where, π^{Ua} is profit of manufacturer excluding slotting allowance and similar π^{Da} is downstream firm's profit excluding slotting allowance while $\pi^{Ua} - S$ gives us π_{Ui} , manufacturer's total profit and $\pi^{Da} + S$ equals to π_{Di} , which is downstream firm's total profit.

$$\begin{aligned} \pi^{Ua} &= (w - c)q \quad ; \quad \pi^{Da} = (p-w)q \\ \pi_{Di} &= (p_i - w_i)q_i + S \quad ; \quad \pi_{Ui} = (w_i - c)q_i - S \quad \quad i=1,2 \end{aligned}$$

3.2. Case II: Both channels are integrated

3.2.1. Vertical Integration

In vertical integration, upstream and downstream firms integrate to form a single entity. In the figure below there is vertical merger between U_1 and D_1 & U_2 and D_2 We call this double-channel merger.

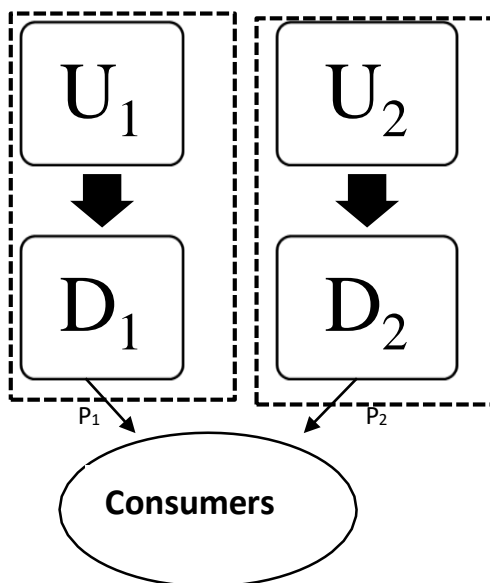


Figure 2. Vertical merger in an Exclusive Trading context

Integrated firm's profits are divided between shareholders of the erstwhile upstream and downstream firms according to their relative bargaining power. The profit function of vertically integrated firm is as below:

$$\pi_1 = (p_1 - c)q_1$$

Each integrated firm chooses optimal price by differentiating its profit function with respect to its price. For firm 1,

$$\begin{aligned}\frac{\partial \pi_{VI1}}{\partial p_1} &= (p_1 - c) \frac{\partial q_1}{\partial p_1} + q_1 = 0 \\ &= (p_1 - c)(-b) + a - bp_1 + \gamma p_2 = 0\end{aligned}$$

On simplifying the above equation, we get,

$$p_1 = \frac{a + bc + \gamma p_2}{2b}$$

When we repeat same exercise for integrated firm 2, we get

$$p_2 = \frac{a + bc + \gamma p_1}{2b}$$

When we substitute p_2 in p_1 we get following optimal retail quantities and prices of each product.

$$p_1^* = \frac{a + bc}{(2b - \gamma)} ; p_2^* = \frac{a + bc}{(2b - \gamma)}$$

$$q_1^* = \frac{b(a+c(-b+\gamma))}{(2b-\gamma)} ; q_2^* = \frac{b(a+c(-b+\gamma))}{(2b-\gamma)}$$

3.3. Case III: One channel is integrated

We begin by focusing on how vertical merger of only one pair of upstream and downstream firms (as shown in the figure below) affects profits of integrated and unintegrated firms, pre and post-merger, and consumer surplus. In the figure below, there is a vertical merger between U_1 and D_1 while U_2 and D_2 remain in their premerger relationship, either Two-part tariff (Nash Bargaining). We call this a single-channel merger.

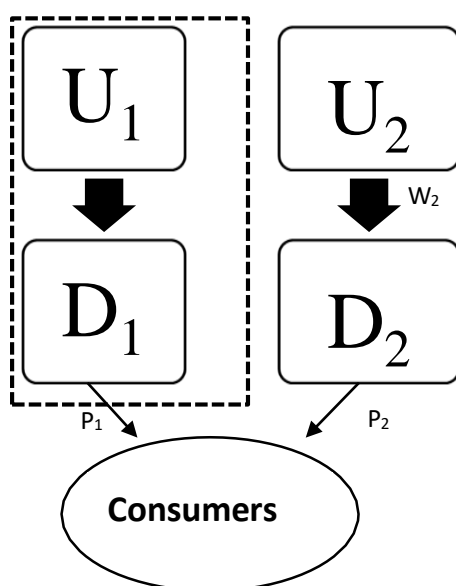


Figure 3. Vertical single-channel merger in an Exclusive Trading context

We use the relevant profit expressions to solve the following two-stage game. In Stage 1, both downstream firms simultaneously decide whether or not to vertically integrate with their upstream supplier. Then in Stage 2, the two supply channels compete in the final goods market. Order of moves within the second period will be the same as above for non-integrating firms U_2 - D_2 while U_1 - D_1 maximize the vertically integrated profits. By symmetry, integration of only U_2 and D_2 , with U_1 and D_1 remaining unintegrated, will give exactly the same payoffs, with firm's subscripts interchanged. We derive the equilibrium prices of the final goods after the single-channel merger, and compare them to the prices in the respective regimes that were derived in the previous cases, to determine whether consumers benefit.

3.3.1 Two-Part Tariff with Nash Bargaining

We begin with structure where U_1 - D_1 are vertically integrated and U_2 - D_2 operate as separate firms with U_2 selling to D_2 under a two-part tariff determined by Nash Bargaining, but here U_1 - D_1 maximize the integrated profits. The Nash equilibrium in this model arises in final goods market where integrated firm and downstream firm 2 interact. Integrated firm's profits are divided between shareholders of the erstwhile upstream and downstream firms according to their relative bargaining power.

The profit function of the vertically integrated firm is as below:

$$\pi_1 = (p_1 - c) q_1$$

Integrated firm's profits are divided between shareholders of the erstwhile upstream and downstream firms according to their relative bargaining power μ . The integrated firm chooses optimal price by differentiating integrated profit function with respect to price,

$$\begin{aligned} \frac{\partial \pi_1}{\partial p_1} &= (p_1 - c) \frac{\partial q_1}{\partial p_1} + q_1 = 0 \\ &= (p_1 - c)(-b) + a - bp_1 + \gamma p_2 = 0 \end{aligned}$$

On simplifying the above equation, we get,

$$p_1 = \frac{a + bc + \gamma p_2}{2b}$$

The equilibrium of bargaining between manufacturer 2 and downstream firm 2 is given with input price w_2 and slotting allowance S by the following maximization problem:

$$\operatorname{argmax}_{w_2, S} \{(\pi_{U2} - \pi_{U0})^\mu (\pi_{D2} - \pi_{D0})^{1-\mu}\}$$

For simplicity we have taken disagreement payoffs of both manufacturer (π_{M0}) and downstream firm (π_{D0}) equal to zero. First order conditions on maximizing gives:

$$\begin{aligned} \frac{\partial \pi_{D2}}{\partial w_2} + \frac{\partial \pi_{U2}}{\partial w_2} &= 0 \\ S &= (1 - \mu)\pi_2^{Ua} - \mu\pi_2^{Da} \end{aligned}$$

Where, π_2^{Ua} is profit of manufacturer excluding slotting allowance and similar π_2^{Da} is downstream firm's profit excluding slotting allowance while $\pi_2^{Ua} - S$ gives us π_{U2} , manufacturer's total profit and $\pi_2^{Da} + S$ equals to π_{D2} , which is downstream firm's total profit.

$$\begin{aligned} \pi_2^{Ua} &= (w_2 - c)q_2 ; \pi_2^{Da} = (p_2 - w_2)q_2 \\ \pi_{D2} &= (p_2 - w_2)q_2 + S ; \pi_{U2} = (w_2 - c)q_2 - S \quad i=1,2 \end{aligned}$$

When we solve the above first order conditions for optimal price and quantity, we find

$$p_1^* = \frac{a(4b^2 + 2b\gamma - \gamma^2) + c(4b^3 + 2\gamma b^2 - b\gamma^2 - \gamma^3)}{(8b^3 - 4b\gamma^2)} ;$$

$$p_2^* = \frac{a(2b + \gamma) + c(2b^2 - \gamma^2 + b\gamma)}{(4b^2 - 2\gamma^2)}$$

$$q_1^* = \frac{(4b^2 + 2b\gamma - \gamma^2)(a - bc + c\gamma)}{8b^2 - 4\gamma^2}$$

$$q_2^* = \frac{(2b + \gamma)(a - bc + c\gamma)}{(4b)}$$

$$S^* = \frac{(2b + \gamma)^2(a - c(b - \gamma))^2(\gamma^2 - 2b^2\mu)}{32b^5 - 16b^3\gamma^2}$$

4. FINDINGS

$w_{i,j,k}^*$ gives optimal wholesale price for upstream firms, where U stands for upstream manufacturer. 'i' can be equal to 1 referring to number 1 firm or 2 referring to number 2 firm. 'j' defines regime type chosen by firm 1, so j can be NB (Nash Bargaining) or VI (Vertical Integration regime). Similarly, 'k' defines regime type chosen by firm 2, so k can be NB (Nash Bargaining) or VI (Vertical Integration regime). Similarly, $p_{i,j,k}^*$ gives optimal retail price for downstream firm where D stands for downstream firm. Here we rank wholesale and retail prices, joint profits and consumer and social welfare. Joint profits of a firm are profits calculated by adding the profits of both the upstream and downstream firms when they are separated, and their consolidated profit when they are integrated.

In the appendix of this paper all the equilibrium expressions are tabulated. On comparing these efficient outcomes of case I (both channels choose Nash bargaining with two-part tariff) with outcomes of case II (each channel vertically integrates) & case III (one channel vertically integrates while other follows Nash Bargaining with two part tariff) we get following relationship. All the proofs in below comparison between wholesale prices, retail prices, joint profits when both firms choose vertical integration or Nash bargaining regime are to be found in working paper by Bhattacharjea and Gupta (2022)²⁸ while the ranking of outcomes for the single-channel merger can be provided upon request.

²⁸ Aditya Bhattacharjea & Srishti Gupta, *Alternative Forms of Buyer Power in a Vertical Duopoly: Implications for profits and consumer welfare* (Centre for Development Economics Working Paper No. 326, 2022). <http://www.cdedse.org/pdf/work326.pdf>

$$\mathbf{a.} \quad w_{i,NB,NB}^* > w_{i,VI,VI}^* = w_{i,VI,NB}^* = c$$

On comparing wholesale prices in these three types of regimes we find that wholesale price will be lowest for case II and case III as vertical integration of upstream and downstream firms maximize their integrated profit behaving as single entity, setting wholesale price equal to upstream firm's marginal cost.

$$\mathbf{b.} \quad p_{i,VI,VI}^* < p_{i,VI,NB}^* < p_{i,NB,NB}^*$$

On comparing retail prices in these three types of regimes we find that retail price will be lowest for case III as vertical integration of upstream and downstream firms maximize their integrated profit behaving as single entity.

With symmetric firms, prices are inversely proportional to consumer surplus and social welfare. Above relation confirms below inequality for consumer surplus and social welfare.

$$\mathbf{c.} \quad CS_{VI,VI} > CS_{VI,NB} > CS_{NB,NB}$$

On comparing consumer surplus in these three types of regimes we find that surplus will be lowest for Nash Bargaining regime.

$$\mathbf{d.} \quad SW_{VI,VI} > SW_{VI,NB} > SW_{NB,NB}$$

So, Vertical integration is welfare enhancing as retail price will be minimum in vertical integration as upstream and downstream firms behave as a single entity, eliminating double marginalization in the vertical structure of that channel.

From above consumer surpluses under different regimes, we find that consumer is getting maximum surplus when both downstream firms choose vertically integrated regime over other two regimes.

$$\mathbf{e.} \quad \text{Comparison of Joint profits of channel 1 for all values of } \gamma \in (0, 1) \text{ and } c \in [0,$$

$$0.5) : (\pi_{1,NB}^*, \pi_{2,NB}) > (\pi_{1,VI}^*, \pi_{2,NB}) > (\pi_{1,VI}^*, \pi_{2,VI})$$

In a nutshell, when the unintegrated channel follows two-part pricing with Nash Bargaining, vertical integration of the other channel benefits consumers but integrated firm is not in favour of merger as its joint profits are reducing post-merger. From above derivations, we can say that total profits of both the integrated and unintegrated firms have reduced post-merger

compared to pre-merger scenario while joint profits are least when both channels choose to vertically integrate.

4.1. Simultaneous and Sequential Game

In this section we find out the Nash equilibrium on the basis of actions chosen by the two chains when they move simultaneously and when they move sequentially. We begin with setting up the game,

Set of Players : 2 players $\{C_1, C_2\}$, where C_i is channel i

Set of possible strategies : $S = \{s_1, s_2\} = \{VI \text{ (Vertical Integrate), No VI (Do not Vertical Integrate)}\}$

Payoff function of player i : $u_i(s_1, s_2)$ where $u_i : S \rightarrow \mathbb{R}$

We will first discuss the simultaneous game where channel i and j choose VI or No VI at the same time. In below section the matrix representation of game is called as strategic game where the rows and columns depict the decisions of the channels and the entries in the matrix are their joint payoffs. We perform this exercise for both the regimes.

4.1.1. Two-Part Tariff with Nash Bargaining

In this bimatrix form, channels simultaneously choose between two strategies, to vertically integrate or to not vertically integrate. Their payoffs in each cell are derived from Cases I, II and III above, whichever is relevant. By comparison of payoffs which are profits of channels under pre-merger post-merger scenario, we find that *to not Vertically Integrate is the dominant strategy for both the channels, so the subgame perfect equilibrium is that neither channel integrates.*

C2

Vertically Integrate

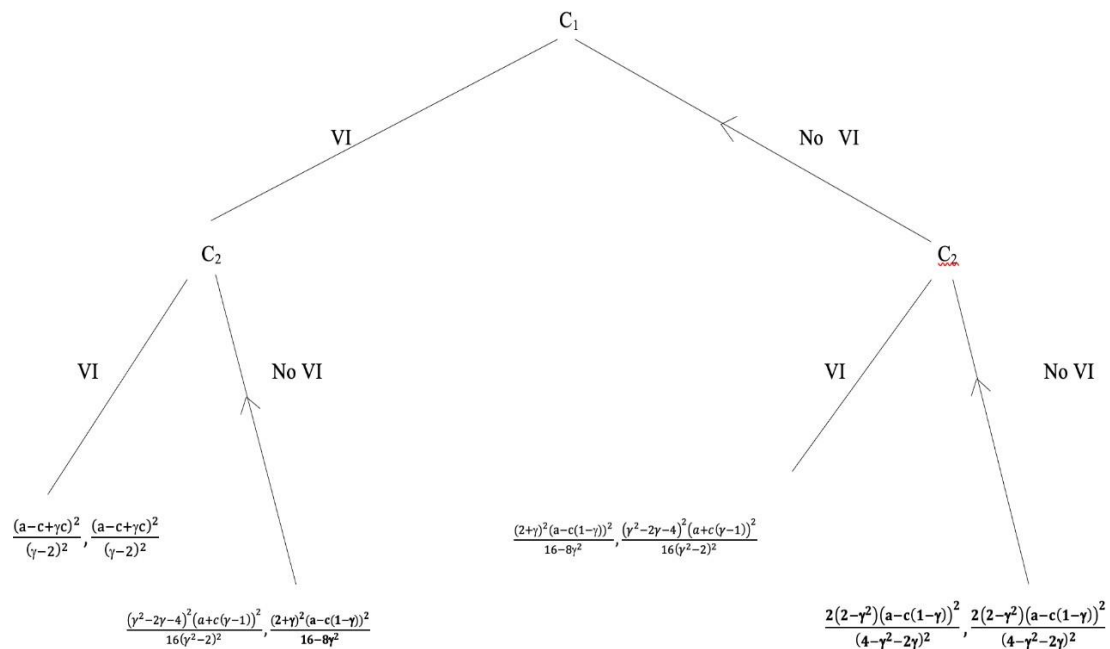
Do Not Vertically Integrate

C1	Vertically Integrate	$\frac{(a - c + \gamma c)^2}{(\gamma - 2)^2},$ $\frac{(a - c + \gamma c)^2}{(\gamma - 2)^2}$	$\frac{(\gamma^2 - 2\gamma - 4)^2(a + c(\gamma - 1))^2}{16(\gamma^2 - 2)^2},$ $\frac{(2 + \gamma)^2(a - c(1 - \gamma))^2}{16 - 8\gamma^2}$
	Do Not Vertically Integrate	$\frac{(2 + \gamma)^2(a - c(1 - \gamma))^2}{16 - 8\gamma^2},$ $\frac{(\gamma^2 - 2\gamma - 4)^2(a + c(\gamma - 1))^2}{16(\gamma^2 - 2)^2}$	$\frac{2(2 - \gamma^2)(a - c(1 - \gamma))^2}{(4 - \gamma^2 - 2\gamma)^2},$ $\frac{2(2 - \gamma^2)(a - c(1 - \gamma))^2}{(4 - \gamma^2 - 2\gamma)^2}$

We have worked out the extensive form below when players play a sequential game instead of simultaneous game. In this game also channels C₁ and C₂ choose between two actions, i.e. vertically integrate, Do not vertically integrate. We have worked out the case where C₁ moves first and then C₂ decides to {(VI,VI),(VI, No VI),(No VI,VI), (No VI, No VI)} on basis of his payoffs. We have perfect information in this sequential game where C₂ knows the strategy of C₁. Hence, we solve this game with backward induction where we begin at final node where C₂ do decision making on basis of his payoffs and then we move upward the tree to C₁ who does his decision making on basis of C₂ 's actions.

On solving the game we found that in Nash Bargaining regime, it is dominant strategy for C₂ to not vertically integrate, hence, C₂ chooses strategy (No VI, No VI). As we move up the tree, C₁ prefers to not vertically integrate over vertical integration as his payoffs are more in former one. Therefore, (Do not Vertically Integrate, Do not Vertically Integrate) is the Nash Equilibrium.

Nash Equilibrium



5. CONCLUSION

Our contribution to existing literature is that so far, literature allocates full bargaining power to either upstream firms or downstream firms while in our study by allowing for two-part tariff regime with Nash Bargaining, we give some bargaining power to the downstream firm and rest to upstream firm in deciding the terms of the contract. From above study we have shown the 2x2 structure where we have two upstream firms each dealing exclusively with one of the two downstream firms, wholesale and retail prices are lower under Vertical Integration than under two-part tariff with Nash Bargaining regime. We can conclude that it is because of elimination of double marginalization, as discussed in the literature, under vertical integration regime that wholesale and retail prices are lower under it. In our model we do not have RRC problem as upstream firms are exclusively dealing with downstream firms.

Also, since competition policy evaluates firms' behaviour in terms of effects on consumer welfare, our model shows that vertical mergers are welfare improving but upstream and downstream firms will not like to implement them as their joint profits are relatively least in integrated structure than in a structure where one firm is integrating while other is separated. Joint profits are maximum when both firms function in a vertically separated structure choosing Nash bargaining regime. These results show that even without considering RRC and exclusionary effects, exclusive contracts may have adverse effects on welfare.

APPENDIX: Table: Comparison of Equilibrium outcomes Pre and Post Merger ($b=1$)

	PRE-MERGER		POST MERGER	
	When both vertical chains follow:		When U_2 and D_2 follow:	
	VERTICAL INTEGRATION	TWO-PART WITH BARGAINING	VERTICAL INTEGRATION	TWO-PART TARIFF WITH NASH BARGAINING
w_1	c	$\frac{a\gamma^2 - c(\gamma^2 - 2)(2 - \gamma)}{(4 - 2\gamma - \gamma^2)}$	c	c
w_2	c	$\frac{a\gamma^2 - c(\gamma^2 - 2)(2 - \gamma)}{(4 - 2\gamma - \gamma^2)}$	c	$\frac{a\gamma^2(2 + \gamma) + c(\gamma^3 - (4 - \gamma^2)(\gamma^2 - 2))}{(4(2 - \gamma^2))}$
q_1	$\frac{(a + c(-1 + \gamma))}{(2 - \gamma)}$	$\frac{(2 - \gamma^2)(a - c + c\gamma)}{(4 - 2\gamma - \gamma^2)}$	$\frac{(a + c(-1 + \gamma))}{(2 - \gamma)}$	$\frac{(4 + 2\gamma - \gamma^2)(a - c + c\gamma)}{8 - 4\gamma^2}$
q_2	$\frac{(a + c(-1 + \gamma))}{(2 - \gamma)}$	$\frac{(2 - \gamma^2)(a - c + c\gamma)}{(4 - 2\gamma - \gamma^2)}$	$\frac{(a + c(-1 + \gamma))}{(2 - \gamma)}$	$\frac{(2 + \gamma)(a - c + c\gamma)}{(4)}$
p_1	$\frac{a + c}{(2 - \gamma)}$	$\frac{2a - c(\gamma^2 - 2)}{(4 - 2\gamma - \gamma^2)}$	$\frac{a + c}{(2 - \gamma)}$	$\frac{a(4 + 2\gamma - \gamma^2) + c(4 + 2\gamma - \gamma^2 - \gamma^3)}{(8 - 4\gamma^2)}$
p_2	$\frac{a + c}{(2 - \gamma)}$	$\frac{2a - c(\gamma^2 - 2)}{(4 - 2\gamma - \gamma^2)}$	$\frac{a + c}{(2 - \gamma)}$	$\frac{a(2 + \gamma) + c(2 - \gamma^2 + \gamma)}{(4 - 2\gamma^2)}$
π_1	$\frac{(a - c + \gamma c)^2}{(-2 + \gamma)^2}$	$\frac{2(2 - \gamma^2)(a - c(1 - \gamma))}{(4 - \gamma^2 - 2\gamma)^2}$	$\frac{(a - c + \gamma c)^2}{(-2 + \gamma)^2}$	$\frac{(\gamma^2 - 2\gamma - 4)^2(a + c(\gamma - 1))^2}{16(\gamma^2 - 2)^2}$
π_2	$\frac{(a - c + \gamma c)^2}{(-2 + \gamma)^2}$	$\frac{2(2 - \gamma^2)(a - c(1 - \gamma))}{(4 - \gamma^2 - 2\gamma)^2}$	$\frac{(a - c + \gamma c)^2}{(-2 + \gamma)^2}$	$\frac{(\gamma + 2)^2(a - c(1 - \gamma))^2}{16 - 8\gamma^2}$
S^*		$\frac{(\gamma^2 - 2\mu)(2 - \gamma^2)(a - c(1 - \gamma))^2}{(4 - 2\gamma - \gamma^2)^2}$		$\frac{(2 + \gamma)^2(a - c(1 - \gamma))^2(\gamma^2 - 2\mu)}{32 - 16\gamma^2}$

**THE RATIONALE BEHIND CHOOSING ARBITRATION OVER LITIGATION:
A LAW & ECONOMICS PERSPECTIVE**

*Priyansha Badoni**, *Dr. Faizanur Rahman***

ABSTRACT

In the contemporary globalised economy, popularity of arbitration as a dispute resolution method has amplified. It has many advantageous features such as expertise of arbitrator, speedy procedure, party autonomy, confidential proceedings, which lack in litigation, thereby making arbitration the preferred mode of dispute resolution. The growth of arbitration is also credited to its stakeholders, namely the arbitrator(s) and the parties. The stakeholders take part in arbitration to derive maximum utility for themselves. They make decisions in the process which are backed by economic considerations. Cost and incentives become the major determinants, guiding their rationale supporting ‘the choice of arbitration’.

This paper studies the mechanism of arbitration through Law and Economics lens. It is divided into five parts. Part I introduces the theme and builds up conceptual framework for the ideas presented. Part II explores the incentives available to the parties to choose arbitration over litigation. Part III discusses the incentives available to arbitrator, which encourages them to constantly work on their skill to remain relevant in the highly competitive market of arbitration. This part also makes comparison between the incentives available to judges of traditional court with that of arbitrators. Part IV examines the social costs of arbitration and determines whether arbitral award is a public good or a private good. Part V concludes the paper by outlining the key findings of this study.

Keywords: Arbitration, Rational Choice Theory, Cost, Incentives

* Ph.D Scholar, Faculty of Law, Jamia Millia Islamia.

** Assistant Professor, Faculty of Law, Jamia Millia Islamia.

1. INTRODUCTION

“The concept of man as a rational maximiser of his self-interest implies that people respond to incentives — that if a person’s surroundings change in such a way that he could increase his satisfactions by altering his behaviour, he will do so”.

- Robert A. Posner⁺

Law and Economics (“L&E”) literature, has majorly focussed on judicial adjudication while reviewing legal systems and processes.¹ The economic perspectives into adjudication has given major insights in understanding judicial behaviour and analysing cost of litigation. However, it is pertinent to mention, that there are relatively less economic studies of arbitration, despite the fact, that cost and incentives are major determinants of its popularity.² In contemporary times, arbitration (both commercial and investment related) is a preferred mode of resolving disputes between parties. It has many procedural benefits which make it a lucrative method of dispute resolution. Arbitrators are generally experts in their field thereby reducing the cost of judicial errors. It is not procedure laden like litigation hence saves the time costs.³ Arbitration is non-adversarial and this helps in preserving relations between parties. The proceedings are confidential which helps parties in preserving their trade secrets and other business-related information and also protect their reputation.⁴

The preference for a private adjudication over state sponsored mechanism of adjudication in court, signals toward the act of making ‘choice’ by the parties. The problem of economics is the problem of choice.⁵ Similarly, in determining whether to settle a dispute through arbitration or court litigation, parties do face this problem as they cannot choose both. Though, if either or both the parties are not satisfied with the arbitral award, the option of approaching court with

⁺ RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 4 (Wolters Kluwer 1997). (hereinafter “BENSON”)

¹ BRUCE L. BENSON, *ARBITRATION*, in B. Bouckaert and G.D. Geest, eds, *ENCYCLOPEDIA OF LAW AND ECONOMICS* 159 (Edward Elgar 2000).

² Michael Faure & Wanli Ma, *Investor-State Arbitration: Economic and Empirical Perspectives*, 41 *MICH. J. INT’L L.* 1 (2020). (hereinafter “FAURE & MA”)

³ BRUCE L. BENSON, *ARBITRATION IN SHADOW OF LAW*, in *THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW*, 93 (Peter Newman eds.1998).

⁴ *Id.*

⁵ Problem of Choice is a fundamental concern in economics. It refers to allocation of scarce resources which also have alternative uses. Similarly, while deciding method of resolving disputes parties have to make a choice where to allocate their resources of money, time and efforts; whether in litigation or arbitration.

their dispute is available to them.⁶ Usually there is a legislative bar to pursue parallel proceedings in court and through arbitral tribunal/institution.⁷ Therefore, the parties must choose and they must choose fast, because pendency of an unresolved dispute will affect them financially and in reputation.⁸

The choice of parties should be rational. In fact, law considers all actors in a legal process to be rational beings.⁹ According to economist Gary Becker, rationality promotes human behaviour which is guided by their pursuit of maximising utility, from a stable state of preferences and is based on optimal processing of information and other inputs.¹⁰ As per the Rational Choice theory of economics, individuals make rational choices by making rational calculations to achieve objectives which are in furtherance of their own self-interest. When people exercise their rationale, it is expected that the resultant outcome will provide them with greatest benefit and satisfaction. According to economist, Amartya Sen, one of the dominant approaches to rational choice is constant pursuit of self-interest.¹¹ Therefore when parties opt for arbitration instead of litigation to resolve their dispute, an analysis of this choice through economic lens will reveal that they are focusing on maximum utilization of the process to serve self-interest. Parties' self-interests in the mechanism of arbitration are, quick disposal of dispute through an expert (arbitrator), within minimum time and cost and least damage to their reputation in business circle.¹²

The rationale behind parties, in making the 'choice of arbitration' is dominated primarily by two economic factors namely, cost and incentives.¹³ As per economist, Bruce Benson, arbitration is a joint effort by parties to reduce cost in dispute resolution. Due to high level of

⁶ William M. Landes & Richard A. Posner, *Adjudication as a Private Good*, 8 J. LEGAL STUD 247 (1979). (hereinafter "LANDES & POSNER")

⁷ In India, Section 8 of the Arbitration and Conciliation Act, 1996 makes it compulsory for the judicial authority, before which an action is brought in a matter which is the subject of an arbitration agreement to direct the parties to go for arbitration.

⁸ Leon E. Trakman, *Confidentiality in International Commercial Arbitration*, 18 ARB. INT'L 1, 2 (2002).

⁹ ANNE VAN AAKEN & TOMER BROUDE, ARBITRATION FROM A LAW AND ECONOMICS PERSPECTIVE, in THE OXFORD HANDBOOK OF INTERNATIONAL ARBITRATION, 876 (Thomas Schultz & Federico Ortino eds. 2020). (hereinafter "TRANKMAN")

¹⁰ GARY S. BECKER, THE ECONOMIC APPROACH TO HUMAN BEHAVIOUR 14 (University of Chicago Press 1976).

¹¹ Amartya Sen, *Rationality and Uncertainty*, 18 Theory and Decision 109 (1985).

¹² BENSON, *supra* note 1, at 165.

¹³ Cost is a concept in economics which means the fiscal value of a product or service. Incentives means a factor that will motivate a person to perform or behave in a particular way.

expertise of the arbitrators the possibility of occurring error cost is minimised.¹⁴ Arbitration is less formal, therefore procedural cost is less if compared with litigation. Since arbitrator can give decisions relatively quicker with less amount of information transferred to him by parties, it saves time cost. The costly delay that arises when court time is allocated by waiting is also kept under check.¹⁵ Therefore despite judicial mechanism being subsidised by the state, parties in present times are instead opting for arbitration, which is largely self-financed.¹⁶

It is not just the parties, but also arbitrators, who as the important stakeholders in the system of arbitration, have contributed towards its popularity. However, the incentives they derive are different from those of disputants such as reputation, income, future appointments etc.¹⁷ Incentives are those factors that motivate a person to act in a particular way or behave in a certain manner.¹⁸ Incentives need not be monetary always. Appreciation, reputation, serving social cause, social status, personal satisfaction are certain non-monetary incentives.¹⁹ While arbitrators' incentives for conducting a successful arbitration may purely be personal such as income and reputation, a judge's incentives are service of society through protection of citizen's rights and interpretation of law, prestige and leisure.

2. INCENTIVES FOR PARTIES TO CHOOSE ARBITRATION

The discipline of economics perceives that the participants in legal process are rational maximisers. They participate in the legal system as intelligent maximisers of their satisfactions.²⁰ Just as ordinary consumers, they will purchase more of a commodity which is priced less and reduce the consumption of a commodity which is priced high. In this context, the cost effectiveness of arbitration process matters to the parties who opt for it instead of litigation. Moreover, these rational participants also respond to incentives.²¹ The theory of incentive acknowledges that if there is a change in person's surroundings, he would respond by moulding his behaviour, only if that contributes to maximisation of his satisfaction from the

¹⁴ Error costs is the cost born by the parties at dispute due to an error in judgement.

¹⁵ BENSON, *supra* note 3, at 93.

¹⁶ FAURE & MA, *supra* note 2, at 4.

¹⁷ TRANKMAN, *supra* note 9, at 876.

¹⁸ EDWARD J. LÓPEZ, AN INTRODUCTION TO THE PURSUIT OF JUSTICE, in THE PURSUIT OF JUSTICE 5 (Edward J. López eds. 2010).

¹⁹ *Id.*

²⁰ RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 4 (Wolters Kluwer 1997). (hereinafter "POSNER")

²¹ *Id.*

process.²² This explains, that apart from cost, there are many other incentives which make arbitration an attractive option for parties.

At present, all international trade contracts at least, have clauses where parties commit to submit their dispute to arbitration and specifically exclude jurisdiction of national courts.²³ What is it about arbitration, that parties opt for this self-financed process over the state subsidised mechanism of adjudication?²⁴ From a L&E perspective, one possible answer could be that parties before submitting their dispute to arbitration, have already taken a rational account of the effects of arbitration.²⁵ Arbitration in fact, offers various incentives which make it lucrative.

Arbitration is a specialised process. It is in tune with demands of the modern times where specialisation adds desirable value in production of most goods and services. ²⁶Today, the virtue of specialisation is expected to be rooted in justice also. Parties appoint arbitrators on the basis of their specialised expertise.²⁷ Disputants make analysis as to, whether the expertise arbitrators profess to have, is suitable for dealing with their dispute or not. From the perspective of economics, their decision will be based on, whether their rational choice will lead to utility maximisation and therefore serve their self-interest in the process. For example, if the dispute is regarding construction of a building, the disputing parties can appoint a civil engineer as arbitrator. The expertise of civil engineer is specific to the dispute. So, it is expected that his specialisation in the subject matter will result in a refined and technically sound resolution of dispute. If the same dispute is submitted before a judge, there is a possibility that his decision making is based on precedents and he is likely to be more generalist in his approach.

Another advantage of the expertise of arbitrators is, that they tend to render awards in a relatively faster pace than the judges.²⁸ Since arbitrators require less transfer of information from the parties as compared to judges in traditional court, the decision-making process in arbitration is relatively a speedier process. Traditional judge are generalists in their approach

²² Richard A. Posner, *The Economic Approach to Law*, 53 TEX. LAW REV. 763 (1975).

²³ Bruce L. Benson, *To Arbitrate or To Litigate: That Is the Question*, 8 EUR. J. L. & ECON. 93 (1999).

²⁴ FAURE & MA, *supra* note 2, at 4.

²⁵ Steven Shavell, *Alternative Dispute Resolution: An Economic Analysis*, 24 J. LEGAL STUD. 1 (1995).

²⁶ BENSON, *supra* note 1, at 187.

²⁷ FAURE & MA, *supra* note 2, at 4.

²⁸ BENSON, *supra* note 23, at 94.

and follow system of precedent and established rules. They require assistance from the advocates in understanding the facts of the case and the applicable law. On the other hand, arbitrators, being specialists in the subject matter, are well acquainted with the technicalities of the dispute. The expertise of arbitrators has another advantageous consequence of minimising cost. In fact, arbitration can be called as a cooperative exercise to minimize the costs of dispute resolution.²⁹ Error Cost in arbitration is far less as compared to arbitration. Error Cost arises in courts because courts have imperfect information, which leads them to make mistakes when applying law.³⁰ Due to adversarial nature of court adjudication the parties may not reveal everything and this causes errors in judgement. The unsatisfied party will then move to the appellant authority which adds onto the cost of case disposal. Errors distort incentives and also impose various cost on the society.³¹ Due to cooperative nature of arbitration, error cost is minimised. Procedural cost in arbitration is kept under check as arbitration is a flexible process. Since parties can opt for rules which are less technical and facilitate fast disposal of case, arbitration turns out to be a less expensive method of dispute resolution. Arbitration also minimises the time cost, as not only the time spent on procedural formalities is saved but also the costly delay which arises when the court time is allocated by waiting is avoided.³² For businesses time is money and delays can be devastating.³³

Another incentive for parties to opt for arbitration is that it gives them the choice to select the substantive law and procedural rules to which they want to bind their contract with.³⁴ This choice of legal jurisdiction is not available in adjudication in courts, where the judges are bound to apply the law of the land. The international contracts can specify that a dispute in future will be resolved as per the laws of a particular nation. In doing so, one thing is certain that the law of any of the contracting party's nation will not be chosen as that may give rise to biasness. Parties generally, maintain a neutral stand in choice of legal jurisdiction so that no party receives an unfair advantage. In this way, the dispute tends to get denationalised.³⁵ It has been observed that standards of business practice and usage within trade associations and other

²⁹ BENSON, *supra* note 1, at 164.

³⁰ Robert Cooter & Daniel Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 27 J.EL.1067 (1989).

³¹ *Id.*

³² BENSON, *supra* note 3, at 93.

³³ BENSON, *supra* note 1, at 164.

³⁴ BENSON, *supra* note 23, at 94.

³⁵ BENSON, *supra* note 1, at 162.

commercial groups also act as a source of basic rules on which contracts are drawn and later disputes are settled.³⁶ The parties may also expect the arbitrators to apply such rules of businesses in settlement of disputes.

Arbitration is a party-autonomous process which is a lucrative incentive. Parties exercise a considerable control over the process, in terms of appointment and termination of arbitrator(s), in determining the rules applicable to the process, in deciding the seat and venue of the arbitration.³⁷ Parties are and feel more in control, in arbitration than litigation. In litigation, once a dispute is submitted it is very much out of the realm of parties and becomes a continuous volley between advocates-judge-law-procedure. Since parties had an important role to play at each stage of arbitral process, it is assumed that the award is more likely to be acceptable to them. Another incentive for choosing arbitration is that it is based on a 'win-win' format unlike litigation which is 'winner takes it all' mechanism. By submitting their dispute to arbitration, the parties are assured that their side of the story will equally be paid attention to and they will walk out of the arbitration with something in their hand and will not lose it all. The cooperative nature of the arbitration proceedings allows for continuation of mutually-beneficial repeated-dealing relationships.³⁸

There are other advantages of arbitration that incentivise disputants to participate. Arbitration is less adversarial than litigation. The atmosphere of the court room, the continuing tension between the litigating parties, the aggressive argument style of the advocates, reflect that litigation is indeed a contest between the parties at dispute and therefore they are going to do anything to let the scales of justice bend in their direction. This adversarial nature of litigation sours relationships. On the other hand, arbitration recognises the importance of continuity of relations in business, thereby it is modelled on cooperative value. Therefore, arbitration incentivises continuance of amicable commercial relations between the two parties. Another factor for which the parties prefer arbitration over litigation is confidentiality. The parties by opting for arbitration, do not want that their dispute is discussed in open court which may also lead to reputational damages. By discussing and resolving their dispute in closed chambers,

³⁶ Lisa Bernstein, *Opting Out of the Legal System: Extra-legal Contractual Relations in the Diamond Industry*, 21 J. OF LEG. STUDIES, 115 (1992).

³⁷ Stephen E. Blythe, *The Advantages of Investor-State Arbitration as a Dispute Resolution Mechanism in Bilateral Investment Treaties*, *The International Lawyer* 273 (2010).

³⁸ BENSON, *supra* note 1, at 163.

parties are also able to preserve their trade secret and other business issues and thereby maintain good business relations.³⁹

However, despite the lucrative incentives that arbitration offers, many scholars have also pointed towards the over-valuation of arbitration as a dispute resolution mechanism. Dr. Robert Kovacs, a renowned lawyer specialising in arbitration, highlighted the challenges to efficiency in arbitration.⁴⁰ He mentions the information failures, agency costs and dilatory tactics that may be played by the parties. By suggesting information failure as a disadvantage in arbitration, he is of the view that it is not necessary that the counsels and arbitrators are able to provide best of their service and possess adequate knowledge and experience. Therefore, not always the most accurate advice regarding the dispute can be rendered to the parties. Because of this, the cost of dispute settlement may increase as the unsatisfied party(s) is likely to approach court. With regard to agency costs, Kovacs is of the opinion that an agency relation exists between a party and the counsel which may result in monitoring costs being born by the party.⁴¹ Parties may also use tactics to delay, for example by seeking court intervention, to avoid the adverse effects that an award may have on their financial records.⁴² Biasness of arbitrator towards the party who has appointed her has always been there. The ‘affiliation effects’ signifying that a party appointed arbitrator may have the tendency to render decision in the favour of the party that appointed him may challenge the legitimacy of arbitration as an unbiased mechanism and may render the whole practice, corruptible.⁴³ However, these shortcomings has not deterred parties at dispute from choosing arbitration over litigation. The usage of blind appointments has also been suggested in which the parties do appoint the arbitrators, however the arbitrators so appointed are unaware bout their appointee parties. This may reduce the scepticism around affiliation bias.⁴⁴

³⁹ TRAKMAN, *supra* note 8.

⁴⁰ Robert B. Kovacs, *Efficiency in International Arbitration: An Economic Approach*, 23 AM. REV. INT’L ARB. 155 (2012). (hereinafter “KOVACS”)

⁴¹ *Id* at 162. Monitoring costs are borne by the clients who are not able to put budgetary limits, influence nor monitor the work of advocates due to lack of expertise. Therefore, they emerge to be at the receiving end in an agency relationship in attorney-client relation.

⁴² *Id* at 166.

⁴³ Sergio Puig & Anton Strezhnev, *Affiliation Bias in Arbitration: An Experimental Approach*, 46 J. LEGAL STUD. 371 (2017).

⁴⁴ *Id* at 372.

3. INCENTIVES FOR ARBITRATORS VERSUS JUDGES

The success and popularity of arbitration as the most preferred method of dispute resolution not just belongs to businesses as contracting parties, but also arbitrators. Arbitrators are important stakeholders in the development of arbitration as a practice. The continuous pursuit of arbitrators to deliver high quality decisions have instilled people's faith in the practice. However, according to L&E scholarship, the incentives that arbitrators receive are much different than those of judges, thereby justifying their conduct of continuously working on their skill and reputation to keep themselves relevant in the market.⁴⁵

Judges in the traditional court system are like any other legal actor trying to maximise their utility in the legal process.⁴⁶ However, what the judges do as utility maximisers is different from what the other legal players do. Unlike arbitrators, money as an incentive for judges to perform well cannot be over-analysed as judges receive a fixed salary or honorarium, which will not change whether the decisions that they give out are bad or good. Hence, their performance in decision making is not incentivised by monetary factor as there is no change in their remuneration even if they render high quality decisions or receive criticism for some. Therefore, money cannot be the only incentive for judges to perform their best.⁴⁷ Judges' self-interest in the process is guided by non-monetary incentives such as leisure and prestige.⁴⁸ Generally judges get appointed at the peak of their age and legal career. In later stages of their life, they may tend to value leisure over hard work. Since judges do not receive a pay raise as a reward, if they give out high quality decisions, they may feel less incentivised to put in their best efforts in the legal process. Increased case load will not make a judge work harder to get over with the pendency soon, instead, that will minimise one of the few incentives that a judge receives, that is, leisure. To an increased workload a judge may respond by spending less time on each case so that his leisure is not scarified.⁴⁹ In fact the judges of superior judiciary, because they cannot get further promotion, tend to value leisure more in their decision making.⁵⁰

⁴⁵ Daphna Kapeliuk, *The Repeat Appointment Factor: Exploring Decision Patterns of Elite Investment Arbitrators*, 96 CORNELL L. REV. 47, (2010).

⁴⁶ Richard A. Posner, *What Do Judges and Justices Maximize? (The Same Thing Everybody Else Does)*, 3 SUP. CT. ECON. REV. 1 (1993).

⁴⁷ POSNER, *supra* note 20, at 570.

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ POSNER, *supra* note 46, at 2.

Reputation, is another incentive which will motivate a judge to perform better. Judges are aware that the kind of decision making they do will affect their reputation, at least in their legal circles. They may be cautious in their approach while dealing with matters as being a part of the judicial system of the country, they serve the larger purpose. The decisions they render, extracts to them the approval from the public and respect from the legal community.⁵¹ Due to fixed remuneration, reputation is an incentive for which judges may work harder. Unlike arbitrator, a judge does not have to work on securing an appointment as his job security and income are virtues that are embedded in his office. Even, if a party(s) is not satisfied with the decision of a judge, they have the option of approaching appellate authority, but it has no effect on appointment of the judge. Unlike an arbitrator who renders award, keeping in mind that he has to secure future appointments too, he avoids taking extreme positions in a case. A judge on the other hand has no such reservations as he presides over a ‘winner-loser’ model of decision making and is bound to give decision in favour of one party.

Judges in their decision-making follow what is known as the theory of legal formalism.⁵² The core idea of this theory is to apply law to facts. Judges are bound to apply the substantive and procedural laws to the case that are submitted before them. They follow the rules and value precedent in their decision making. The approach of arbitrators is rather flexible, however that is because of the very nature of arbitration. It was developed and promoted to avoid the strict ‘law-abiding’ procedure in court adjudication. Judges in court tend to be generalists in their approach. As the nature of adjudication does not demand specialisation, there is no motivation rather requirement for a judge to develop his skills on a particular subject matter.

Parties cannot dictate a judge in the court room. Judge does not get his authority from the contract of the parties. He is a constitutional authority deriving his authority from the supreme law of the land. Therefore, when a party submits dispute in a court of law, his own case is very much out of his control as now, it is the advocates-judges-law and procedural rules that take it forward. Judges do not have to mould their conduct in order to pacify the parties, like arbitrators do in order to seek future appointments. A judge in the courtroom serves a larger purpose of service to law of the land and society.

⁵¹ Lawrence Baum, *What Judges Want: Judges’ Goals and Judicial Behaviour*, 47 POL. RES. Q. 749 (1994).

⁵² THOMAS SCHULTZ, THE ETHOS OF ARBITRATION, in THE OXFORD HANDBOOK OF INTERNATIONAL ARBITRATION, 876 (Thomas Schultz & Federico Ortino eds. 2020).

Incentives that arbitrators get are much more in comparison to what judges receive by providing high quality decisions. Arbitrators continuously work on their skill to remain relevant in the market. The constant pursuit of upgrading and enhancing their skill and building reputation is due to the fact that arbitration market is very competitive. Arbitrators are paid handsomely for their high quality-specialised decision making. Parties at dispute opt for arbitration, due to the specialised expertise of arbitrators. Hence it is generally the experts of a subject matter that secure appointment as arbitrators, for their skill of specialised decision-making thereby adding value to the award. Incentives for arbitrators are many and they also mould their conduct and performance to derive maximum utility from the process. For instance, there is always the pressure of optimizing performance. Therefore arbitrators, always have to work on their skill. Like judges, arbitrators also have their own interest such as, earning income and also ensuring its continuous flow, establishing and maintaining their reputation in market, advancement of career, contributing in furtherance of justice even though privately and they may also value leisure time.⁵³

It is observed that arbitrators' decision making is directed towards the preference of existing or potential parties.⁵⁴ 'Arbitrator's exchangeability' explains as to why arbitrators will deter from taking extreme positions. The parties in arbitration are allowed to express their preference in selection of arbitrators.⁵⁵ Each party is likely to rule out appointment of an arbitrator who is known for taking extreme positions, and thereby the possibility of each party walking out with good share of the pie is minimised. Parties will expectedly, not allow for appointment of arbitrators whose historical decision are in conflict with the interests of the party.⁵⁶ Therefore a pattern in the behaviour of arbitrators has been observed. Arbitrators are likely to give out decisions that other arbitrators will also give out in similar situations. Through this systematic strategy arbitrators protect their decisions from looking unusual.

⁵³ Kovacs, *supra note* at 40, at 160.

⁵⁴ Aaken & Broude, *supra note* 9, at 14.

⁵⁵ Orley Ashenfelter, *Arbitration*, in THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 90 (Peter Newman ed., 1998).

⁵⁶ *Id.*

Arbitrators also employ the strategy of ‘splitting the difference,’ that is, they will give each side a partial victory.⁵⁷ Such approach also rules out any allegation of biasness on arbitrator and is also attractive to risk-averse parties at dispute. It also increases the possibility of acceptability of award. Arbitrators also placate both the parties as it is one of the essential determinants in securing them future appointment. By taking extreme stand, they will not diminish the future possibility of their selection. This is what has led arbitration to become a win-win method of dispute resolution since each party is likely to walk out with something for itself from the award. This also ensures that business relations are maintained.

Arbitrators come armed with expertise. However, to survive in the competitive market of arbitration services, they also have to build their reputation. Reputation in fact will fetch them other incentives attached with the process such as continuity in flow of income, advancement in career and also leisure. For an arbitrator his reputation will matter a lot, as disputants would hardly approach someone less reputed in arbitration as their economic calculations will motivate them to invest in somebody experienced in the field, to lower down the party’s cost of decision errors. However, reputation may take years to build.⁵⁸

Thus, arbitrators are better incentivised in comparison to judges which motivates them to refine their skills as arbitrators. Even if judges, render high quality decisions, there is no pecuniary reward they are entitled to, apart from the fixed salary they receive. The competition in the arbitrator market is high, therefore it requires continuous effort on part of the arbitrators to upgrade their skills, establish their reputation, to seek appointments and to ensure regular flow of income. Judges on the other hand are appointed through a fix process varying as per jurisdictions and receive fixed salary/honorarium and therefore lack the motivation in terms of income to work upon their prowess as decision makers. But a judge serves the society at large through his decision making and also contributes to the development of law through its application and interpretation, and that in itself may act as an incentive for many and encourage them to optimise their performance at work.

⁵⁷ POSNER, *supra* note 20, at 558.

⁵⁸ KOVACS, *supra* note 40, at 170.

4. SOCIAL COSTS OF ARBITRATION

The role that a judge plays in the society is very different from that of an arbitrator and rather a massive one. When a judge presides over a case, he serves the interest of the society while an arbitration proceeding is limited to utility maximisation of the stakeholders who are part of the process. In other words, arbitration will be sought by the parties to serve their own self- interest and not necessarily society's good. Therefore, one can undertake that, adjudication in court produces public good while arbitration produces private good.⁵⁹

A public good has two characteristics. First, it is non-rivalrous. Meaning, that if one person consumes the good, another person is not excluded from consuming the same good as well. The second characteristic is non-excludability - it is difficult to provide good to one person or a defined set of persons while at the same time not making the good available to others.⁶⁰ In the light of this explanation of public good, a precedent created in a courtroom can be described as a public good. Judge while presiding over a case is assumed to offer two kinds of services.⁶¹ One is the dispute resolution where judges determine whether a rule has been violated. Second, is the rule formulation, where a legal point is settled, which provides ratio for future disputes of similar circumstances. This practice creates a rich mine of precedent, something which is absent in practice of arbitration. A precedent which is the by-product of the dispute settlement process provides information regarding the likely outcome of similar dispute in future. Therefore, one can assume that adjudication is a public good. Since court creates large and public positive externalities, courts are subsidised by the government.⁶² The whole society, even not being directly involved in the dispute is able to benefit from the increased clarity in the legal norms and their application.

Arbitration on the other hand, is a private good, as the proceedings are exclusive.⁶³ As a process it only focuses on the parties who have opted for the same or to state more clearly have paid for it. Therefore, it excludes others from the proceedings. Unlike a judge who serves the society

⁵⁹ RALF MICHAELS, INTERNATIONAL ARBITRATION AS PRIVATE OR PUBLIC GOOD in THE OXFORD HANDBOOK OF INTERNATIONAL ARBITRATION, 398 (Thomas Schultz & Federico Ortino eds. 2020). (hereinafter "MICHAELS")

⁶⁰ *Id.* at 402.

⁶¹ LANDES & POSNER, *supra* note 6, at 236.

⁶² Positive externality is when a third-party benefits from another party deciding to consume or produce a product or service.

⁶³ MICHAELS, *supra* note 59, at 408.

at large, arbitrators focus exclusively on the parties who have paid to avail their services thus making arbitration rivalrous. Hence arbitration is a private good. Arbitrators are not bound by the precedent nor they are expected to produce any while resolving a dispute. Arbitrators have to only concentrate on resolving disputes by doing justice in the individual case. Their decision making need not have relevance beyond the parties. Therefore, Arbitration is a beneficial process for the parties however it does not serve societal purpose.⁶⁴ It is less likely to have any impact on the public at large when compared with adjudication in the court.

Arbitration does not produce public good in the way adjudication does. This is also because, arbitrators lack the incentive to write their opinion as arbitration is privately financed unlike court which is funded through public finance.⁶⁵ Moreover arbitrators address each case on exclusive considerations and refrain from establishing a system of arbitral precedents. That will encourage parties to seek settlement instead of opting for arbitration as they can predict response of arbitrator in their case. Parties will settle beforehand to save costs on arbitration. Therefore, to maintain the relevancy of arbitration market, following and setting up of precedent system is not beneficial. Hence, arbitration produces a private good whose consumption is restricted to the parties who pay for it.

Thus, considering the social cost of arbitration, one may say it is not able to produce the public positive externalities like court system does.⁶⁶ There is nil incentive for the arbitrator to write opinion or give reasons for their decision. Maintaining uncertainty in the decision-making process in arbitration is rather beneficial for the market of arbitration to survive. Therefore, establishing and following a system of arbitral precedent finds no encouragement. From a social perspective, arbitration is plagued with a substantial disadvantage, which is absence of public good.⁶⁷

5. CONCLUSION

In the globalised economy of modern times, arbitration with its many advantages has become the preferred way of resolving commercial disputes. The keen inclination of parties to opt for a self-financed method like arbitration instead of state-sponsored adjudication, calls for an

⁶⁴ LANDES & POSNER, *supra* note 6, at 236.

⁶⁵ *Id.*

⁶⁶ Social costs is the sum total of private costs that are borne by individuals who are a part of transaction with external cost borne by third parties who are directly not involved in the transaction.

⁶⁷ FAURE & MA, *supra* note 2, at 12.

analysis of such behaviour through L&E methods. L&E approach enlightens, that while opting for arbitration, parties in advance make calculations regarding the benefits they are likely to derive through their participation in the process. L&E scholarship acknowledges that all legal actors make rational choices which lead to utility maximisation, aiming at their respective satisfaction. Therefore, disputants and arbitrators are expected to take part in arbitration to serve their self-interest.

Apart from minimisation of cost there are other incentives for disputants which make arbitration an attractive option. Autonomy over the process, speedy disposal of dispute under the aegis of a specialised expert, within minimum time and preservation of business relations and reputation are certain non-monetary incentives for parties in dispute. Arbitrators on other hand are focussed on ensuring a regular flow of income, securing future appointments, and building their reputation in the market. They are likely to avoid taking extreme positions and not jeopardise their future appointments and to achieve this, they have a tendency to split the difference. The incentives available to arbitrators are more as compared to judges who might prefer to maximise their utility through, leisure and maintaining prestige in the advance stages of their career.

To conclude, a L&E approach provides us with valuable insights. Ultimately, legal actors are rational human beings. They make rational choices and like many choices they make in their everyday life, 'the choice of arbitration' is also guided by economic considerations. Their rationale is guided by economic factors such as cost and incentives and after making considerable calculations about their utility maximisation from the process, they choose arbitration over litigation.

SOCIAL INCENTIVES AND THE ENFORCEMENT OF LAW: SOME REFLECTIONS*V. Santhakumar¹***ABSTRACT**

This short essay looks at the ineffectiveness of laws to control dowry in India from a law and economics perspective. This starts with an understanding of the economic and social incentives to provide dowry. Ensuring the welfare of daughters through marriage (and not much through employment), and the struggle to get the 'best possible bridegroom' play an important role in the increase in the dowry. This encouraged even communities that were not following this practice in the past to follow it currently. Hence there are private incentives for both givers and takers to continue with the practice and these work against the enforcement of the dowry prohibition act.

Moreover, dowry is a private transaction. At the time of the transaction, both parties expect gains from it. However, these expected gains may not be realised after the transaction or there could be severe losses to one of the parties (mainly to the girl and her family). Parents may have an incentive to bring severe dowry harassment cases to the court, but givers and takers have little incentive to stop the practice or provide adequate information to law enforcement agencies if such a severe harassment is not taking place. This also works against the enforcement of the dowry prohibition act.

Though the payment of dowry can be seen as part of an informal contract, there are limitations in using the contract law also against dowry. If the dowry prohibition act is somewhat ineffective in reducing, the paper highlights its possible benefits. These may include creating ideas of a desirable norm in society, and this role of law needs to be understood in detail especially in countries like India.

Keywords: Dowry Prohibition Act, Law and Economics, India

1. INTRODUCTION

¹ Azim Premji University, Bangalore.

There are cases where the majority of people in a country like India do not want to follow a law. For example, even though dowry is illegal in India², majority of families pay and accept dowry³. Another case is the laws against corruption. There are many situations where the giver and receiver of bribe benefit from corruption,⁴ and hence both may not have an incentive to reveal the information on the (corrupt) transaction. The enforcement of anti-corruption laws becomes difficult in such transactions.

In general, law enforcement is difficult when the act which is considered illegal is a private transaction from which both the parties benefit. Law enforcement in such cases may require an intrusion into the privacy of individuals which may not only enhance the cost of enforcement, but also may be disliked by the society. There are two implications here. If we take the law against dowry or corruption on their face value, these are ineffective (since there are social incentives to continue with the targeted practices). However, there could be other indirect benefits of such legal interventions - such as the creation of a desirable norm or ideal which may have some benefits in terms of long-run social change.

There is a need to understand the functioning of law in such cases. This short essay is a modest attempt in this direction. This is important because of the higher demand for law (and the tendency to provide/supply it) as an instrument to deal with difficult social issues.⁵ Though the law against dowry is discussed here, this article is not a commentary of Dowry Prohibition Act.⁶ This article is also not much about the unavoidable connection between the effectiveness of law and cultural practices.⁷ Instead, the essay analyses the purpose of a law and its performance when the majority of people have an interest/incentive not to follow it. Though the dowry prohibition act is taken up as a case, the

² It is banned under Dowry Prohibition Act, 1961, No. 28, Acts of Parliament, 1961 (India). Some of the later amendments, as in 1984, were based on the understanding of the ineffectiveness of prohibition. Even though these amendments allowed certain presents to be exchanged at the time of marriage, the related provisions are not followed by most people.

³ The ineffectiveness of dowry act in controlling the payment of dowry is noted in the literature: For example, Shobhit Srivastava et al., *Banned by the law, practiced by the society: The study of factors associated with dowry payments among adolescent girls in Uttar Pradesh and Bihar, India* 16(10): e0258656 PLoS ONE (2021).

⁴ How do social incentives and norms lead to the persistence of corruption is discussed in the literature. For example, refer Ajit Mishra, *Incentives, norms and the persistence of corruption*, 161 DUNDEE DISCUSSION PAPERS IN ECONOMICS (2004).

⁵ When there was a movement against corruption led by Anna Hazare, the demand was to create a legal mechanism such as Lokpal. Will people have the incentive to use such a mechanism was not a major concern then.

⁶ There are such commentaries. For example, Paramjit S. Jaswal and Nishtha Jaswal, *Anti-Dowry Legislation in India: An Appraisal*, 3(1) J. IND. L. INSTT. 78 (2020). There are critical analyses such as B. Pramila, *A Critique on Dowry Prohibition Act, 1961*, 76 PROCEEDINGS OF THE INDIAN HISTORY CONGRESS 844 (2015).

⁷ Such a connection in the case of dowry is discussed in Tara S. Kaushik, *The Essential Nexus Between Transformative Laws and Culture: The Ineffectiveness of Dowry Prohibition Laws of India*, 1(1) Santa Clara J. Int'l. L. 74 (2003).

arguments in this essay are relevant in a number of issues, especially in a developing country like India.

2. DOWRY - SOCIAL INCENTIVES

It is true that dowry is a social issue in India warranting legal or social intervention. There are cases of dowry-related harassment, and the victims or their families may want an intervention by the law. However, there is no incentive for the majority of parents who pay the dowry to take the issue to the court. They may not even reveal the information on the payment of dowry. The payment and acceptance of dowry may remain as a private transaction. However, when there is a dowry-related harassment of intolerable level, and/or when the girl's family does not want the marital relationship to continue, the case may reach the court.

These are private incentives to pay (and obviously to receive) dowry. In the Indian context, parents want to ensure girls' social, financial and personal security through marriage. This is true even if they are educated and employed. Hence dowry is partly a one-time transfer to the bridegroom so that the girl has a claim on the wealth/incomes of her husband. Moreover, when many families are after a 'desirable' bride groom, his bidding price goes up.⁸ Hence the amount of dowry is increasing, and it is becoming an acceptable practice even among communities which have not been practicing it in the past.⁹ When the dowry transaction happens, it is in the interest of both parties based on their expectations. However, harassment case is an instance when one feels let down after the transaction. Or that party's expectations at the time of giving dowry are not met. This encourages that party (the giver) to go to the court.

The cases of harassment related to dowry may have encouraged the governments to make dowry illegal. However, there is no social incentive to declare dowry as illegal (as evident from the fact that the majority of Indian citizens pay and accept dowry). Hence the illegality of dowry can be taken as an outcome of two possible responses. First, it is a response towards dowry harassment. In order to

⁸ Such rationale for dowry is noted in the literature: For example, see Praveena Kodoth, *Producing a Rationale for Dowry? Gender in the Negotiation of Exchange at Marriage in Kerala, South India*, ASIA RESEARCH CENTRE, WORKING PAPER NO. 16, LONDON SCHOOL OF ECONOMICS AND POLITICS (2006).

⁹ For example, the practice of dowry has become widespread and the amount of dowry has gone up even among erstwhile matrilineal communities like Nairs in Kerala

reduce dowry-related harassments, dowry is made illegal. Second is due to the view (of an influential minority) that dowry is an undesirable practice.

If the law against dowry is a response to the cases of dowry harassment, there is a lot more matching between the expectations from the law and the reality of law enforcement. Let us take up this interpretation in the following section.

3. FIRST INTERPRETATION OF THE ILLEGALITY OF DOWRY

In a normal dowry transaction, the expected private benefits are higher than the private costs for those who give dowry. (They may be seeing their daughters co-owning marital property and receiving a fair share of family welfare). Hence, they don't see dowry as an issue. When something goes wrong, it means that (a) actual benefit of dowry becomes lesser than the expected one when the husband is not providing the expected welfare; and (b) when the private costs go up when the husband demands more dowry (after the marriage through different forms of harassment), people may approach the court and reveal information on the payment of dowry.

Though the law which bans dowry is in place, society/governments want to take action only when there is some harassment. Then the ban can be taken as a particular institutional mechanism that is adopted to address the real problem, i.e., harassment related to dowry. One should not be taking the illegality of dowry 'seriously' then. One can ask a different question. What about a law just to intervene in the cases of dowry harassment instead of a law that bans dowry?

One can see that dowry harassment has similarities with the issues handled through the contract law.¹⁰ In a contract, both parties expect to benefit ex-ante, but in certain cases, one may suffer losses ex-post, and this party may approach the court.¹¹ The purpose of court intervention based on contract law is to mitigate the genuine losses of this party. In that sense, a dowry transaction can be taken as a part of a contract (though it is informal), and there can be penalties if one of the parties fail to stick to the agreement. (Of course, there can be aspects of a criminal act as part of dowry harassment, and these can be treated within the framework of laws against crime.) If dowry harassment is treated like

¹⁰ Dowry is visualised as a contract in the literature. See Soumyanetra Munshi, *'Arranged' marriage, education, and dowry: A contract-theoretic perspective*, 42(1) J. Econ. Dev 35 (2017).

¹¹ This is discussed in the literature on law and economics. Refer, the chapter on contracts in S. GANGOPADHYAY AND V. SANTHAKUMAR, *LAW AND ECONOMICS: THEORY AND PRACTICE (TWO VOLUMES: VOL I AUTHORED AND VOL II EDITED)* (Sage Law 2013).

a breach of contract, then judicial mechanism similar to those used for adjudicating the dissolution of marriage (family courts) should be adequate.

Of course, there are issues in using a contract-like legal framework to deal with dowry harassment cases. First, there is no formal contract as part of a dowry transaction. Secondly, there could be diverse expectations (which are not agreed upon by both parties and documented). What is reckoned as a 'breach' by one party need not be viewed so by the other party. However, the fundamental difference between the breach of a contract and dowry harassment is the following: Contract law is formed with the objective of facilitating more and more contracts, since these are socially (and economically) useful. Contracts are surplus enhancing exchanges carried out voluntarily by parties, and hence the enforcement of contracts by the courts is primarily aimed at enhancing the confidence in contracts. However, it is not clear whether dowry is a transaction that is socially beneficial. (One may argue that marriages could be mutually beneficial or surplus enhancing and hence contracts which ensure marriage including dowry exchange have to be facilitated. However, this proposition can be questioned since dowry leads to the cementing of the subsidiary/secondary role of women in marital relationships, and is against gender equality. Its negative implications on economic and social justice are also recognized.)¹²

What about treating dowry harassment as a normal harassment which can be dealt with criminal laws rather than by making dowry illegal? Probably some details would be lost by not considering dowry as a special transaction. The demand for more money/wealth, and the intangible suffering associated with it may be overlooked if the possible impact of dowry is not taken cognizant in such harassment cases.

There is yet another way to see the illegality of dowry. There could be difficulties in acting against harassment since it happens within private spaces, and also because of the socioeconomic conditions in India. Many people are poor, and the majority of women may not be willing to reveal the oppression that they encounter within the marriage due to their dependency and unequal position in marital relationships. These institutional features or weaknesses in India may make the action against dowry harassment difficult, without making dowry illegal. There could be similar issues in other domains.

¹² JEAN DREZE AND AMARTYA SEN, *INDIA: ECONOMIC DEVELOPMENT AND SOCIAL OPPORTUNITY* (Oxford University Press, 1995).

For example, wildlife hunting is illegal in India whereas it is legal in a number of developed countries. There could be an implied moral basis for the ban on wildlife hunting. However, there could be practical/institutional reasons too. Taking actions against illegal hunting may become more difficult when legal hunting is allowed due to different institutional deficiencies.¹³

4. SECOND INTERPRETATION OF THE ILLEGALITY OF DOWRY

There may be another justification for banning dowry. There could be a view of the minority - let us call them agents of social change - who consider that the payment of dowry itself is undesirable, and hence it should be banned. This position is legitimate since dowry transactions imply a subsidiary or secondary role for women in marriages, and this is against women empowerment and gender equality.¹⁴ This normative position or the demand from those who hold such a position encourages the government to make dowry illegal. However, it is not enforced in the majority of dowry transactions. It is very difficult to enforce, since there would be very little information on the actual transaction of dowry. The majority of those who pay dowry may not take it to the law enforcement agencies. In this case, the law remains unenforced due to the lack of social incentives.

One can interpret that the approach here is to make a law but it is enforced only when there is a demand from affected parties. There are other such examples in India. Environmental laws in India are well written but these are not adequately enforced. Even the enforcement agencies like the Pollution Control Board may not take adequate action against the cases of pollution on their own. The government and its enforcement agencies are often compelled to act only when there is a public interest litigation (“PIL”).¹⁵ Such a PIL can be filed by the parties directly affected or others (and they can be called indirectly affected parties since environmental pollution may affect the society as a whole). Hence the situation in this case is that the laws are in place but these are enforced only when there is a social demand. That is the reason why one may see a greater number of or frequent environment-related PILs in certain states (like Kerala) where the social demand for pollution control

¹³ This is discussed in V. Santhakumar, *ECONOMIC ANALYSIS OF INSTITUTIONS: A PRACTICAL GUIDE* (Sage Publishers 2011).

¹⁴ The connection between dowry and gender inequality is discussed in the literature. For example, Rajeev Kumar, *Dowry System: Unequalizing Gender Equality*, in *GENDER EQUALITY* 170 (Walter Leal Filho et al. eds. 2020).

¹⁵ V. Santhakumar, *Citizens- Action for Protecting the Environment in Developing Countries: An economic analysis of the outcome with empirical cases from India*, 8 *Env. Dev. Econ.* 505 (2003).

is also higher. What is the purpose of the law then? It can be to empower the people who are willing to use it.

Aren't all laws meant to empower those people who want to use it? One may argue that the law enforcement happens only when the affected party seeks legal remedy. Of course, this is legally valid only in the case of civil law. In criminal law, there is an action against those who commit the crime even if the victim does not demand action. If we define dowry (and harassments related to dowry which do not encourage the victim to approach the court) as a civil case, then the non-demand of enforcement may not be a serious issue. On the other hand, if we treat dowry as a crime, then the non-enforcement of the ban on dowry is to be recognized as an institutional failure. This could be partly due to its nature as a private transaction. It has similarities with aspects of domestic violence which may also not reach law enforcement agencies. However, the continued interest to provide dowry on the part of bride's parents (even if there are possible cases of dowry related harassments) is somewhat different from the reasons which prevent people from taking instances of domestic violence to the court.

The law can serve as a desirable norm even if it is not used currently. Usually, the enforcement of such a norm is demanded by a minority of educated/informed section of the society (like the way in which such a section may demand stringent regulations to control pollution.) However, the share of people who demand this enforcement may go up as part of educational and social change. There can be a virtuous cycle linking the law and social change then.

The difference between these cases and those for which the cost of enforcement is higher

When we think about the issues like dowry, where the law is not enforced due to the lack of social incentives, there are other similar issues wherein law is not enforced or used. For example, money lenders (in states like Punjab) may not go to courts in the event of non-repayment of loans, even if there is a signed contract.¹⁶ Instead, they may use informal community norms and private persuasion to get back the money. These cases are different from the ones which we have mentioned in the essay. In the former set of cases (such as money lending), the consideration is the higher cost of formal

¹⁶ Indervir Singh, *Imperfect Information and Contract Enforcement in Informal Credit Market in Rural Punjab*, in *ECONOMIC TRANSFORMATION OF A DEVELOPING ECONOMY: THE EXPERIENCE OF PUNJAB, INDIA* 183 (Lakhwinder Singh and Nirvikar Singh eds. 2016).

enforcement (which may be impacted by the possible delay in courts). Or the affected parties may perceive that the informal enforcement (through community connections and private persuasion) is cheaper than the enforcement through courts. Some may be considering the long-term gains through the continuation in business (even if they have to forego some money for using community connections). All these instances are due to the costs of enforcing, and not due to the incentives related to the underlying social phenomenon. Hence, policy measures which are required to make formal law enforcement much more common in these cases have to be different.

5. CONCLUSION

If those people who demand to make dowry illegal expect that such a legal action would lead to its disappearance, the law becomes ineffective. It is not unusual to see sections of people (especially activists) demanding legal interventions to address social issues. This demand, without understanding the underlying social incentives, may lead to ineffective legal interventions. However, there can be two uses for these laws which are apparently ineffective. First is to use it in those cases where the damage to some people is very high so that they don't mind to get out of the equilibrium shaped by social incentives. Second is the scope of such laws as desirable norms or as guiding principles for long-run social change.