© *The Pakistan Development Review* 62:4 (2023) pp. 553–572 DOI: 10.30541/v62i4pp.553-572

The Ongoing Crisis in the Sugar Industry: The Implications of Legislation and a Need for Deregulation

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The proposed research project is based on a multidisciplinary approach in order to analyse the law governing the sugar industry and the implications thereof. The proposed research project focuses on the current market operation within Pakistan, critically contrasting it with the model implemented within different jurisdictions for effective market operation of the sugar industry. It highlights the inefficaciousness and longstanding practices of the market players, how these are supported by existing legal structures, and how these undermine competition. While the sugar industry is highly significant towards the economy of Pakistan and regardless of the so-called stringent legislative control, which have without a doubt failed, this study shall focus on unveiling the adverse implications of these rules and regulations and analyse a more viable model for an effective market operation.

INTRODUCTION

The sugar industry plays a crucial role in Pakistan's economy, but government regulations have made it highly regulated, inefficient, and anti-competitive. This article explores the historical development of the sugar industry in Pakistan, focusing on the legislative framework that has shaped it up to 2021. It considers relevant laws, case law, and findings from the Sugar Inquiry Report (Sugar Inquiry Commission, 2020).

To gain a comprehensive understanding, the study includes key informant interviews with stakeholders along the sugar supply chain and experts. These interviews assess the proposed reforms' prudency, efficiency, and adequacy, aiming to determine their effectiveness and viability. Ultimately, the article will propose reforms tailored to Pakistan based on this research.

PRE-PARTITION

From the late 1800s to the early 1930s, the sugar industry in the Dutch East Indies, particularly on the island of Java, went through significant developments. Initially, sugar was a crucial export commodity for the colony, primarily directed towards European

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markets. However, in the 1880s, the Java-based sugar factories lost contact with these markets. Around the turn of the 20th century, the United States became a major recipient of Java's sugar exports due to disruptions in Caribbean sugar supplies caused by the Cuban revolution and the Spanish-American war. However, by the early 1910s, Java shifted its focus to Asian markets, particularly the Indian Subcontinent, China, and Japan (Knight, 2010).

The development and maintenance of the sugar industry became crucial for the Indian subcontinent, and historical records indicate that India had a well-established sugar industry dating back centuries. Around the same time, with the decline of indigo cultivation in North Bihar and increased emphasis on cane production, modern sugar factories began to emerge.

Table 1Mean and Coefficient of Variation of Decadal Values of Sugar Area, Production,
Yield, and Recovery: 1930-31/1939-40 to 1940-41/1949-50

	Area		Production					
	(Million Hectare)		(Million Tons)		Yield (Tons/Hectare)		Recovery	
Decades (% Cane)	Mean	% CV	Mean	% CV	Mean	% CV	Mean	% CV
1930-31/1939-40	1.443	15.29602	51.2889	19.75914	35.36246	7.76582	9.079	3.426276
1940-41/1949-50	1.4308	10.33157	49.2878	10.27937	34.49068	5.411209	9.95	2.024515

Sir James MacKenna, in 1928, highlighted India's substantial sugarcane consumption. By 1930, India was on the path to self-sufficiency in sugar production, with a significant increase in the number of modern sugar factories (Burt, 1935).

In 1932, the Indian Legislature passed the Sugar Industry Protection Act, which protected the local sugar sector and imposed tariffs on sugar imports, ensuring India's self-sufficiency in sugar production by 1935 (Kansal, 1997).

To regulate the sugarcane sector, the government passed the Sugar Excise Act and the Sugarcane Act in 1934. The Sugar Excise Act aimed to offset revenue losses due to decreased sugar imports, and the Sugarcane Act allowed provincial governments to set minimum cane prices and established a "Zoning System" to regulate cane purchasing.

The "Zoning System" required every farmer in a specified "command area" to sell to an associated mill, and these areas were clearly delineated. The system aimed to enhance the collaboration between farmers and mills, increase cane production per acre, and benefit both parties.

However, the implementation of the Zoning System led to variations in farmer outcomes, depending on the ownership structure of the mills (cooperative, private, or public). The efficiency and coordination of mills played a crucial role in determining how much sugar was extracted from each ton of cane (Mullainathan & Sukhtankar, 2014).

Overall, these developments in the sugar industry transformed India into a selfsufficient sugar producer by the mid-1930s, with a significant increase in the number of sugar mills and the implementation of regulatory acts to ensure fair pricing and protect the local industry.

POST PARTITION OVERVIEW

Fig. 1. Sugar Supply Chain/Relevant Stakeholders



Note: Federal, Provincial, and Local Governments are also key stakeholders.

Prior to partition, non-Muslims owned over 80 percent of the industrial enterprises in West Pakistan for example, they owned 167 of the 215 indigenously held firms in Lahore and dominated the whole finance market (Ali & Malik, 2009).¹ Hence, Pakistan had only two sugar mills at the time of partition. However, as a result of the Indian subcontinent's perfervid commitment towards the sugar industry and its reform prior to partition, the sugar industry in Pakistan grew to become a major processing sector, second only to textiles in terms of sales volume.

The Government laid the groundwork for the business in the 1950s with the establishment of four sugar mills (Lodhi, et al. 1988). Industrial growth became a major policy goal. The large-scale manufacturing sector in West Pakistan increased at a rate of 34 percent per year from 1949 to 1950 and 1954 to 1955, resulting in a significant increase in industrial growth thereby facilitating a significant increase in the rate of capital influx into the country, which rose from around 2.5 percent of GNP in the mid-fifties to around 7 percent in the mid-sixties. Hence, the industrial sector saw a relatively high pace of expansion in the early 1950s (Ali & Malik, 2009).

Moreover, with the enactment of The Sugar Factories Control Act 1950 regulated cane was marketed to mills, and each mill was assigned a zone or area from which it was compelled to purchase a certain amount of cane supplies. However, the percentage varied amongst provinces, for instance, in Punjab, it was 80 percent, in the NWFP, it was 65 percent, and in Sindh, it was 100 percent. Mill zone growers were required to sell a similar amount of their cane production to the mill and the Government determined the minimum price at which mills may purchase cane each year. The Act made it illegal for middlemen to be involved in the sale of sugar cane to mills. Mills were expected to keep a grower register, estimate the amount of cane produced by each grower in their respective zones before the start of each crushing season, guarantee regulated supply to the sugar factories, declaration of areas to be reserved for the supply of cane to a particular factory. To ensure the execution of the Act, the Provincial Cane Commissioner was appointed (Lodhi, et al. 1988).

However, the success or failure of any venture was dependent on businessman's access to official channels as there was almost no financial infrastructure in place. To fill this funding shortfall, public institutions, such as the Pakistan Industrial Development Corporation ("PIDC"), were established. These agencies, however, tended to favour larger,

¹ Until the end of 1955 it is estimated that about 7 million refugees entered West Pakistan, and 1.25 million refugees entered East Pakistan, while 5.6 million Hindu and Sikh refugees left Pakistan for India

more established businesses with a proven track record of profitability and security. Hence, jeopardising the entire purpose for which they were established (Lodhi. et al. 1988).

Notwithstanding, by the 1960s, with eight (08) sugar mills, direct economic controls on imports, new investments, the prices of domestically produced manufactured goods were implemented in the 1950s (Safdar, et al. 2016). These controls were seen as not only ineffective economically, but also as a source of corruption. In the 1960s, the Ayub Khan's government removed these price limits, liberalised commerce, and welcomed new investment. The main source of export encouragement was a 1959 export-bonus plan, which effectively provided a subsidy for exporters and a limited free market for imports (Safdar, et al. 2016).

In the 1970s, sugar manufacturing capacity continued to expand as different tariff and non-tariff constraints on sugar imports made domestic sugar production profitable and twelve additional mills were built. The majority of these were in the public sector, but government policy switched again in the late 1970s, this time in favour of the private sector (Lodhi, et al. 1988).

By 1981, Pakistan had 31 sugar mills which eventually grew to 45 mills in 1988, with a total refining capacity of 1.26 million tonnes (Safdar, et al. 2016). During this period of deregulation in the sugar industry, government intervention decreased significantly. Price and distribution controls on refined sugar were lifted, and rationing was abolished. The government replaced imports with a regulatory duty on sugar imports, ending its import monopoly. The mill zoning system was phased out, and the sugar sector was no longer classified as a Specified Industry, eliminating the need for government approval for new investments or capacity expansions (Lodhi, et al. 1988).

The Government further launched a new sugar policy for the country in May 1987 and the decision to officially remove the zoning system, beginning with the 1987 and 1988 crop year, was a crucial component of this policy. Farmers were now free to supply cane to any mill that offered the best price under the new arrangement and they were also empowered to convert any amount of cane into gur. At the same time, the said policy also entailed that the cane support price must be maintained at a minimum and the mills were also allowed to buy cane from outside the designated zones; after de-zoning (Lodhi, et al. 1988).

Pakistan has been on a "liberalisation" path since 1990 (Ali & Malik, 2009). The sugar industry became a crucial area of state patronage, and politically influenced decisionmaking resulted in a plethora of underutilised sugar mills (Ali & Malik, 2009). Despite this, sugarcane production had greater protection rates in the 1990s than wheat, rice, or cotton, and was thus, disproportionately grown by farmers. Pakistan was the world's fourth largest sugarcane grower in terms of area under production in 1999, however, the same ranked fifteenth in terms of yield per hectare (Rizvi, 2000).

More recently, Pakistan has become a major sugarcane producer, ranking fifth in terms of sugarcane cultivated area, 60th in yield, and 15th in sugar production. The industry employs more than 100,000 labour force while more than 9 million people of rural population are involved in the production of sugarcane. There were 78 sugar mills from 2003-2004, with one in Azad Kashmir, while the number of mills increased drastically, reaching an overall of 83 Sugar Mills in 2015; 45 in Punjab, 08 in Khyber Pakhtunkhwa and 30 in Sindh, in accordance with the Pakistan Sugar Mills Association (Safdar, et al.

2016). Currently, there are 89 operating sugar mills in Pakistan (Sugar Inquiry Commission, 2020). Pakistan has the ability to develop an area of 13,224 hectares along the main feeder canal from the Indus river in Sindh, utilising 34 percent idle capacity of Pakistani mills capable of exporting 50,000 tonnes of sugar to the Arab World in exchange for half a million barrels of crude oil (Rizvi, 2000). However, due to greater production costs, increased imports, and deteriorating competitiveness of the native sugar sector and the future of this business in Pakistan mostly linked to production efficiency, adoption and development of new production technology can boost productivity and efficiency; however, it is a challenging due to restricted income and loan to growers.

The following graph depicts the gradual increase in the number of sugar mills throughout the decades:





Moreover, agriculture has been devolved to provinces since the 18th amendment to the Constitution of the Islamic Republic of Pakistan, 1973, was implemented in 2011, and sugarcane prices are now controlled by provincial administrations. Sugarcane price in Pakistan has always been a sensitive issue and it is critical to link sugarcane pricing to its sucrose concentration to improve efficiency in the sugar industry. However, the current pricing system is weight-based, with little respect for the quality of the produce. The sugar sector will continue to be inefficient and uncompetitive, wasting resources, unless provincial governments acquire the competence to solve the myriad difficulties, concerns, and challenges in this setting and balance the conflicting interests of all stakeholders (Salam, 2019).

There have been numerous issues influencing the sugar sector through the decades. In Pakistan, lower productivity is owing to a shortage of irrigation water, inadequate fertiliser input, and improper insecticide and pesticide spraying et al (Rizvi, 2000). The sucrose content of sugarcane plays an important role in boosting sugar output and the government may take steps to ensure that cane growers adopt better sugarcane types with high sucrose content and are disease and insect resistance. Moreover, our research institutes should develop high sucrose content sugarcane varieties, and each mill should have a diligent cane department that ensures that fresh cane supplies from the fields are delivered to the mills on the day of harvest so as to ensure minimum weight and sugar content losses during transit (Rizvi, 2000).

Rising consumer prices worldwide, especially in emerging nations like Pakistan, have led to economic challenges and reduced the purchasing power of the average citizen, resulting in a food crisis in the country. Sugar shortages in Pakistan have occurred due to

various issues, driving up food costs and severely limiting consumer purchasing power. The political influence in Pakistan's sugar industry is significant, with many mills established with the help of Developmental Financial Institutions ("DFIs"), which often face working capital problems. This has led to the closure of some mills, further contributing to the loss of national assets, reduced sales tax revenue, and increased unemployment.

Cultivators argue that the sugar crisis is not a natural disaster but the result of mill owners' failure to purchase available sugarcane stocks from the market. They contend that the sugar industry is not uncompetitive and point to two primary causes: keeping sugarcane prices below the support price and sugar mill owners reaping excessive profits (Chhapra, et al. 2010). Chhapra, et al. (2010) make similar claims, highlighting the monopolisation of governmental institutions by large farmers and the use of corrupt practices by landlords and sugar mill owners to access more lucrative marketing channels, leading to artificial shortages driven by hoarding for disproportionate profits.

However, the shortage could be natural as well. Unfavourable weather conditions, a market structure that reduces supply over time, and changes in government policy that may affect production are all examples of natural shortages. In a report published in 1988, the National Commission on Agriculture acknowledged that the area under sugarcane cultivation was suffering from water stress, and that it would be unrealistic to expect further production growth based solely on area expansion, especially since future irrigation supplies were expected to be limited (Dawn, 2006).



Fig. 3. Problems Plaguing the Sugar Industry

Also, the depreciation of the local currency is another factor that affects sugar pricing, as Salam (2009) observed in his study that distortions in incentives of major crops in Pakistan from 1991 to 2008, were due to large fluctuations in domestic and world market prices, as well as an upward trend in domestic prices triggered by the depreciation of the local currency (Dawn, 2006). It is noteworthy that, unfortunately, pricing systems that produce the right incentives necessitate a level of sophistication that is difficult to legislate and is more likely to emerge through cooperative ways (Larson & Borrell, 2001).

LEGAL REVIEW

To understand the regulatory framework governing the industry, relevant laws (total 34) were compiled and analysed. In particular, enabling provisions, the legislative intent behind its drafting, which key stakeholders it affects or regulates, any SROs drafted under it, the enforcement mechanisms, penalties, and the law's relevance were taken into account in drawing conclusions.



Fig. 4. Shortfalls of the Legal Framework Regulating the Sugar Industry

Attention is drawn to the following laws:

Sugar Factories Control Act 1950

Pakistan inherited a total of 2 sugar mills from the sub-continent, which attracted imports to meet the demand. The main policy concern at the time was promoting the industry and attracting all involved stakeholders towards a safe investment, foremostly, the agriculturalists. To accommodate the fact that the sugar industry is functional only through a limited period and the consumption needs to be met throughout the year and to ensure timely payments to the growers, the government was buying entire stocks of sugar and making it available to consumers at subsided rates (Rizvi, 2020).

The main purpose of this Act was to ensure a regulated supply to the sugar factories, at a price at which it may be purchased. This objective is met through establishing a Sugarcane Control Board and a Cane Commissioner who may: require the occupier of any factory to submit to him an estimate of the quantity of cane required during the crushing season, declare areas to be reserved or assigned area for the supply of cane to a particular factory, and binding cane growers to particular factories etc.

Markedly, under s. 13 and 14, the Cane Commissioner is to allocate specific growing areas to specific sugar manufacturers to ensure a constant supply for the mills. S. 13 delegates reserved areas; these areas are completely reserved for the sole manufacturer and other purchasing units are forbidden from purchasing the cane from that area. Assigned areas under s. 14 provide for more flexibility; in the event of failure to supply the requisite amount of cane to the factory, the factory may purchase the balance from an outside assigned area.

Concerning price regulation, the Act grants the Provincial Government the power to determine a minimum price to procure sugar cane, to protect growers from manipulation.

To guarantee cane price fairness by ensuring that the growers get paid price based on the sucrose content, and not just the sole ornamental factor of weight, a quality premium² was introduced in the early 1980s³ to encourage farmers to use better quality cane varieties to increase the sucrose content of their crops. Sugar mills of Sindh and south Punjab are recovering up to 11.5-12 pc sucrose against the base level content of 8.7pc (Jamal, 2020).

This requirement, arguably, still goes against the profit interests of millers who have consistently fought against having to pay such premiums. From their perspective, they are having to pay for the same stock twice⁴ when in reality, the premiums provide an incentive for growers to invest in growing varieties with higher sucrose content allowing these millers to make a lot more sugar than competitors who are recovering base level content (Jamal, 2020). Perhaps instead, the better argument to be made is of the absurdity that Pakistan remains the only country to have sugarcane pricing that is not based on recovery and the inefficiency of this model is demonstrated by Pakistan's low sugarcane productivity of 54.6 tonnes per acre compared to Egypt's 120 tonnes per acre (Ahmad, 2020). After all, if the intention is to encourage farmers to cultivate better sugarcane, then the pricing model should allow for proportionate compensation and more regular reviews of the minimum support price ought to be undertaken to this end.

Other accusations leveled against the provisions of this Act by millers include that this allows the Provincial Governments to 'arbitrarily' or 'unilaterally' set the minimum procurement price for cane (Bokhari, 2014). However, the process for determining the minimum support price has always been fairly comprehensive and inclusive; it starts with the Agricultural Policy Institute (API) sending the Provincial governments non-binding recommendations regarding the support price after using an elaborate system of calculation

 $^{^{2}}$ A quality premium is the additional price given to the farmers for higher sucrose content.

³N.W.F.P Sugar Factories Control (Amendment) Act, 1988, s 2; Sugar Factories Control (Amendment) Ordinance, 1985, s 2;

⁴Fauji Sugar Mills vs. The Province of Punjab 1996 CLC 592 LAHORE-HIGH-COURT-LAHORE

for its determination. Then, the Sugarcane Control Board is established in each province (under the 1950 Act) which includes representatives of all stakeholders to determine the final support price (Sugar Inquiry Commission, 2020). Furthermore, mill owners point out that in the regulation of this minimum support price, the Government tends to increase it while the price of sugar, largely unregulated, remains the same (Bokhari, 2014). In contrast, according to the Commission of Inquiry's report, the support price has remained constant from 2015 to 2019 despite outcry from farmers associations that this did not take into account the substantial increase, since 2015, in the cost of real inputs such as fertiliser, labour etc. (Sugar Inquiry Commission, 2020). Admittedly however, it appears that in recent times millers themselves conceded that there should be a 10 pc increase in the minimum price for 2021-22 and apparently, both growers and millers seemed to finally be coming onto the same page as opposed to locking horns as usual (Khan, 2021).

Nevertheless, it should not also be forgotten that despite all these restrictions, the Sindh Abadgar Board notes that millers appear to consistently make profits and sugar mills remain a lucrative business—something that cannot be said of cane farming (Bokhari, 2014). In fact, a sugar commission report shed light on the grave reality of how the sugar lobby has not only continuously coerced governments—past and present—to line its own pockets but also violated the Sugar Factories Control Act with impunity. It was shown, through a forensic analysis of the sugar mills, that the actual sugar output had been largely under-reported and consequently, there have been accounts of massive income tax evasion that go entirely unchecked by the Central Board of Revenue (Jaferii, 2020 & Ahmad, 2020).

Price Control and Prevention of Profiteering and Hoarding Act 1977

This Act came into force on 25 May 1977 for the purpose of controlling the prices and preventing the profiteering and hoarding of specific 'essential commodities'. An exhaustive list of these has been provided in the Schedule to this Act. Crucially, 'white sugar' and 'gur' have also been listed here (though a number of other commodities have also been listed) so the provisions of this Act, and any legal principles that flow from it, are relevant for present purposes. Provisions of note include; s.3, which empowers the Federal Government (or any authority delegated by it⁵) to control/regulate, through notification, prices, production, movement, supply etc. of any essential commodity for the purpose of ensuring equitable distribution and fair prices. Under s. 6, no person shall dispose of an essential commodity at a price higher than the maximum price as fixed by the Controller-General of Prices and Supplies (as appointed by the Federal Government) and s. 7 makes it a criminal offence to contravene any order made under ss. 3 and 6.

To date, this Act has remained extremely relevant for legal purposes; as recently as this year, the Price Control and Prevention of Profiteering and Hoarding Order 2021 (under the 1977 Act) came into force. This has been subject to much public criticism for simply being an attempt to put a band-aid over the pervasive issue of surging prices due to inflation and shortages (Jamal, 2021). It has been argued that such knee-jerk measures unnaturally disrupt the supply-demand equilibrium causing shortages and other widespread adverse effects for the consumers – the very group such provisions are enacted to protect. Furthermore, according to experts, price controls provide incentives for hoarding, black

⁵ Price Control and Prevention of Profiteering and Hoarding Act 1977, s 4.

marketing, production cuts etc., causing consumers to eventually pay a lot more than they would have otherwise (Jamal, 2021).

Price Control and Prevention of Profiteering and Hoarding Order 2021

This Order was promulgated on 24 August 2021 under the Price Control and Prevention of Profiteering and Hoarding Act 1977. It outlines the powers and functions the Controller-General possesses for the exercise of the provisions of the 1977 Act and this Order. E.g., the authority to; seek the record of timely reports from producers/dealers/importers, search the premises of a registered trade associations etc.⁶

Of special note is the power to fix the price of an essential commodity *suo moto* in case of a "national emergency" i.e., a 'situation of uncontrolled price hike with average increase of not less than thirty-three per cent in price from the immediately preceding year and also includes a situation of war, famine or natural calamity'. This equation of a price hike with situations of war, famine or a natural calamity has been criticised as an attempt to justify sudden price curbs when and if imposed (Jamal, 2021).

The idea behind giving the executive such powers to flexibly impose price caps is to provide immediate subsidies for consumers but is perhaps the economic equivalent of brushing the dust under the rug. It not only removes incentives for farmers but adversely impacts them, leading to suppressed supplies, inferior quality product, artificial shortages etc., culminating in higher prices eventually.

Despite this, producers of sugar are expected to thrive as the vague policies and the employment of a 'cost-plus' method of determining the prices to be fixed means that the higher costs of doing business can simply be passed on to the consumer. There is now incentive to inflate costs unnecessarily as producers can simply demand higher prices while their margins stay constant.

Essentially, free market prices are indicators of scarcity which can only be resolved once it is identified however, such artificial distortions can confuse market forces precipitating more serious problems in the long-term (Mahmood, 2021).

Sugar Supply Chain Management Order 2021

The Order requires those involved in the sugar industry, such as factory occupiers, brokers, dealers, and wholesalers, to register their go downs with the Deputy Commissioner. An appeal can be made to the Cane Commissioner if registration is rejected. The Order limits sugar storage to two and a half metric tonnes, with notification required for excess storage. Millers can only sell sugar to registered wholesalers or brokers.

The Order also grants powers to Cane Commissioners and Deputy Cane Commissioners. They can issue directives to ensure the proper management of sugar stocks, including storage, sale, and movement between provinces. In cases of sugar shortages, they can direct the sale of specified quantities at ex-mill prices or take possession of stored sugar and sell it as needed. They have the authority to inspect documents and sugar stocks held by various industry stakeholders.

Khan, (2021) suggests that the Sugar Supply-Chain Management Order 2021 aims to prevent sugar hoarding and create a more competitive market. This would benefit sugarcane

⁶ Price Control and Prevention of Profiteering and Hoarding Order 2021, s 4.

growers, who could explore other options in a deregulated market, and incentivise sugar producers to enhance their efficiency in production and pricing (Khan, 2021).

The Punjab Sugar Supply Chain Management Order 2021 and the Prevention of Speculation in Essential Commodities Ordinance 2021, according to Chief Minister Usman Buzdar, are key initiatives made by the government to provide assistance to the people. Furthermore, he stated that the regulation will prohibit price increases in edibles (Fareedi, 2021).

Moreover, after manufacturers refused to reduce the price of sugar, the Punjab Government, acting on the said Order, seized stock from sugar mills to sell in the market at notified rates. The seized stock will be sold through dealers at a maximum of Rs 85 per kg, down from the previous high rate of Rs115 per kg (Geo News, 2021).

Sugar Factories Control (Amendment) Act 2021

Originally, when the sugar crisis hit Punjab in the preceding year, the Sugar Factories Control (Amendment) Ordinance 2020 was promulgated in September 2020 to quickly respond to the situation because bringing a whole Act into force would be a time-consuming task (Khan, 2021). This Ordinance was largely pro-farmer and included provisions such as; giving the Government the authority to decide the date for crushing, making the delay of payment of dues to growers or any illegal deduction punishable upto 3 years imprisonment and a fine of Rs. 5 million, delay in the start of crushing was made similarly punishable, mill owners were required to present formal receipts and if dues to farmers were not paid then the mill owner could be arrested and the mill could be forfeited (Baig, 2021). This was a welcome change as it allowed the Punjab Government to get the crushing started by early November, force the compliance of millers and ensure payments to farmers (Khan, 2021).

Later, following the expiry of the Ordinance, the Sugar Factories Control (Amendment) Act 2021 was brought into force however, unusually took a complete U-turn by reversing all the pro-farmer provisions of the preceding year. This Act took away the power of the Government to decide the date of commencement for the crushing season, resuming the relaxation of commencing it at any time before November 30⁷. Critically, the millers were previously receiving cane on a 15-day credit but this Act extends this to an 8-month credit cycle by fixing the deadline for payment as June 30, following the crushing season.

This immediately drew the condemnation of nearly all stakeholders involved except, of course, the millers. The Act has been described as "a black law which legalises exploitation and is designed to hurt farmers" and all farmers' bodies are now threatening protests and sit-ins (Khan, 2021).

With the help of the resources provided to us by the Office of the Cane Commissioner, we gained insight into some of the unreported cases such as JS Bank vs. Brother Sugar Mills and M/s Tandlianwala Sugar Mills Ltd vs. Province of Punjab and others. The former clarified that title to white sugar, where the price for the sugarcane remains unpaid, is with the growers whereas the latter reaffirmed that Cane Commissioners could only proceed against mills for determination of liability under the procedure set out in the Sugar Factories Control Act 1950. Moreover, some of the landmark judgements we covered in our research is the judgement of Fauji Sugar Mills Vs The Province of Punjab, where the Lahore High Court held that the imposition of quality premium through S.16-A

⁷ Note how this was criticised for being too rigid and ignoring varietal changes over time.

is unconstitutional. Also, as per the Army Welfare Sugar Mills Vs The Government of Sindh, the courts cannot question the existence of quality premium in itself- the only point that can be brought in question is whether the quality premium is commensurate with the revisions to the minimum price of cane set by the Government.

Additionally, there was also a recent judgment by the Competition Commission of Pakistan ("CCP") whereby sugar mills, under the Pakistan Sugar Mills Association ("PSMA") were found to be engaged in anti-competitive practices (cartelisation) following an investigation. This judgment resulted in one of the highest penalties levied to date by the CCP i.e. Rs. 44 billion or \$265 million. Notably, the National Accountability Bureau ("NAB") also conducted a number of inquiries into the sugar business, however findings from these are not publicly available. Additionally, the Sugar Inquiry Report that was delivered to the Prime Minister in 2020 also pointed out that contrary to popular belief at the time, the infamous sugar price hike in December 2018 to June 2019 was the result of mala fide practices by the sugar mills rather than low production of sugarcane.

KEY INFORMANT INTERVIEW

Interviewees:

- (1) Seerat Asghar, Former Secretary, Ministry of National Food Security and Research.
- (2) Mian Muhammad Umair Masood, President, Pakistan Kissan Ittehad.
- (3) Mohammad Amin, Chief of Sugar Cane, Agriculture Policy Institute.
- (4) Masood Ajmal Dullu, Cane Grower.
- (5) Mohammad Zaman Wattoo, Cane Commissioner, Food Department of Punjab.
- (6) Dr. Hassan Iqbal, Secretary General, Pakistan Sugar Mills Association.
- (7) Syed Mahmood ul Haque Bukhari, President, All Pakistan Farmer's Association.
- (8) Maqsood Malhi, Legal Head, JDW Sugar Mills.

The following themes were discussed:

- The current status of zoning systems
- The preferred regulatory model
- The reality and impact of quality premium and minimum price
- Government intervention in the sugar industry
- The influence of mills in the sugar industry
- The trainings/awareness campaigns by the government
- The issues affecting the farmer community
- Sugar a preferred commodity over Gur
- The lack of implementation of governing laws
- The existence of legal loopholes in the sugar industry

Findings and Discussion

Two contrasting narratives exist within the sugar industry: that of the farmers and the millers. Farmers generally perceive a significant power imbalance in the industry, leading to numerous injustices and limited recourse. They feel excluded from a system heavily influenced by a powerful sugar lobby with direct government connections. While recent improvements in payment delays are acknowledged, they attribute these changes to reduced cane production. Farmers believe that mills exploit their dominant position by making unwarranted deductions, delaying payments, and benefiting from regulatory loopholes. They also feel there is insufficient research and development (R&D) and almost no on-ground extension programs. The current legal and regulatory framework is seen as favouring mills, and this is attributed to the political ownership of several major mills.

In contrast, millers argue that the farmers' claims are exaggerated and that no widespread malicious intent exists in their business practices. They view the industry as overly regulated without adequate justification and advocate for sugar to be traded like any other commodity. Millers assert that government regulations place them in a tight spot, with minimum prices set for cane and maximum prices for sugar. They claim that malpractices like delayed payments and deductions are exceptions, not the norm. Millers suggest that the industry needs deregulation, as the existing system is outdated and hampers progress.

From this discussion, it is apparent that there are two diverging perspectives prevailing in the industry with little common ground beyond the fact that the current system needs to change. While there are obvious biases on either end, any effective change that is to be undertaken must endeavour to address these concerns so far as it is possible. Overall, our findings through these Key Informant Interviews are also concurrent with the literature that reviewed such as the fact that there has been severely deficient Research, Development and Extension work (Raza & Amir, 2021), and the unsustainable price control mechanisms (Jamal, 2021). Other points raised that we also found reflected in pre-existing literature include the existence of challenges such as scarcity of water and improper irrigation and the dominance of political figures as millers (Rizvi, 2000; Chhapra, et al. 2010; Rizvi, 2000).

PROPOSED RECOMMENDATIONS

Phased-Out Plan for Implementation of Reforms

The challenges faced by the sugar industry, including water security, politicisation, and a lack of innovation, have limited its potential. However, the industry's success or failure is primarily determined by its governing institutions, policies, incentives, and effective management of challenges.

There is a consensus among stakeholders that reform is needed in the governing framework of the sugar industry. However, vested interests and short-term solutions often hinder the establishment of a sustainable solution. This is particularly problematic given the industry's importance in Pakistan and its entanglement with political interests. Implementing change, whether favouring millers or growers, is politically challenging due to entrenched industry practices and associated costs. Nonetheless, the recurring sugar crisis highlights the need for systemic change. To address this, three industry models have been considered: Partial Deregulation (as seen in India), the Single Regulatory Model (as in the Philippines), and Complete Deregulation (as implemented in Australia).

The Indian Model—Partial Deregulation

Prior to deregulation, the defining feature of the Indian Sugar Industry was the concept of 'Levy Sugar' and a monthly release mechanism (Randhawa & Gupta, 2017). Levy sugar represented the proportion of sugar produced that mills were obligated to

supply to the Government at a cheaper rate for sale through the Public Distribution System ("PDS"), the remainder of which could then be sold in the open market (subject to controls by the government in case of excessive fluctuation). The idea was that this would allow the Government to ensure that sugar could be made available at a grassroots level at an affordable price (Priyanka, et al., 2016). Furthermore, the monthly release mechanism was established to guarantee a consistent and uninterrupted supply of sugar in the market by controlling the quantities sold in the market on a monthly basis (Randhawa & Gupta, 2017).

Parallels between the Indian and Pakistani sugar industries can be drawn in that the industry is highly politicised with the Government extending its control over a multitude of aspects concerning sugar such as licensing, capacity, cane area, procurement, sugar pricing, distribution, imports and exports (Randhawa & Gupta, 2017). Generally, since 1967-68, the Indian government adopted a policy of 'partial decontrol', interspaced with two short periods of 'complete decontrol' in the 1970s (Priyanka, et al. 2016). Over the years, various committees like the Mahajan, Tuteja, Thorat, and Nanda Kumar Committees repeatedly recommended partial decontrol of the sugar industry, but their suggestions were not implemented. However, in 2012, the Rangarajan Committee's report prompted the government to partially decontrol the industry in April 2013. This partial decontrol eliminated restrictions related to levy sugar and the monthly release system but retained some production controls imposed by state governments, such as licensing, cane procurement areas, and cane pricing (Priyanka, et al., 2016).

Despite this progress, it was generally regarded as unsatisfactory with some suggesting that the Government needs to further and implement complete deregulation instead (Lavanya, 2019; Kalra, 2012). Others remain unconvinced arguing that complete deregulation would leave stakeholders vulnerable. For example, the argument against abolishing the Cane Area Reservation system includes concerns about uncertainty in cane supply, leading to uneconomical mill operation. Deregulation might expose sugar pricing to market fluctuations, both domestically and internationally, without consumer protection. Additionally, farmers, dealing with highly perishable cane, could face restricted negotiation capabilities, impacting their deals (KPMG, 2017).

The Filipino Model—Single Regulator

Philippine's Sugar Regulatory Administration ("SRA") was established on 28 May 1986 via Executive Order No. 18. This was the focal regulatory body for the sugar industry responsible for establishing an orderly system for sugarcane cultivation for the purpose of ensuring a stable, sufficient and balanced sugar production and carrying out relevant research as may be necessary for the formulation of policies and the planning and implementation of programs (Tobias, 2020). It consists of a Sugar Board which is tasked with the formulation of policies rules and regulations for the promotion of growth and development of the industry. The Administrative wings of the SRA are then charged with overseeing and enforcing the governing laws, policies, procedures, systems rules and regulations. The SRA also consists of an internal auditing department to determine the degree of compliance to the SRA's mandate (Sugar Regulatory Administration, 2019).

The Australian Model—Complete Deregulation

Australia is a leading global sugar producer due to its adoption of a free-market approach in the sugar industry. Despite its current success, the industry was previously heavily regulated. However, subsequent reviews led to complete deregulation in 2006. Regulation provided stability but limited the industry's ability to adapt to market conditions, and deregulation ultimately enhanced its competitiveness (Craigie, 2014).

Consequently, when deregulation was effective, it allowed growers and mills to set their own cane prices and abolish 'assigned areas' so that growers could have more freedom to contract (ASMC, 2020). The result of this was that there was increased innovation and a significant improvement in the trade prospectus across all industry processes i.e. growing, milling marketing, etc. (Kumar, 2019).

There was, eventually, a step back to regulation in 2015 due to farmers' fears that their interests would not be sufficiently protected however, this move was heavily critcised as there was no market failure to justify reregulation (Queensland Productivity Commission, 2015).

The proposed recommendations aim to pave the way for Pakistan's sugar industry to transition towards a free and competitive market by advocating complete deregulation. Recognising the present industry landscape, a five-stage plan is suggested to gradually reduce government intervention and establish a coherent framework, allowing the industry to realise its full potential over time.

PHASE I – Consolidation & Accessibility of Laws

During research, there were significant hurdles in accessing relevant legislative instruments due to limitations of major legal databases and the fact that experts and key players in the industry did not seem to agree on the present regulatory framework. This fragmented understanding of the mechanics of the industry increases compliance costs and opens the door for exploitation of more vulnerable stakeholders. For example, the provisions of the Gur Control Order 1948 were reportedly used to restrict farmers from producing Gur even though there was never any legal force behind the Order since the promulgation of the Sugar Factories Control Act 1950. This fact was not made apparent until 2021 when a Lahore High Court judgment declared the Order ultra vires.

Either one of the following actions is recommended:

- Formulate a working manual (to be made available in local languages) for stakeholders elucidating the processes, rights, roles and responsibilities of those involved in the industry.
- Initiate comprehensive education and awareness campaigns with improved availability and access to relevant laws, rules and regulations so that all stakeholders can be brought onto the same page regarding their rights, roles and responsibilities alongside generating an understanding of threats and opportunities within the industry.
- Redraft and consolidate all relevant governing provisions into a single enactment. This should then be made readily accessible in local languages.

PHASE II—Implementation and Enforcement

The lack of sincere implementation and enforcement of the protectionist measures already in place is a major problem in the sugar industry. This is mainly due to the dominant influence of mills and the lack of political will to challenge the status quo. However, no progress can be made without genuine enforcement of laws, rules, and regulations.

One way to encourage cooperative enforcement is for enforcement agents to identify key problem areas and distinguish between violations by hardened offenders and the compliance irregularities of well-meaning individuals. For the latter, a more cooperative and less intrusive approach can be adopted, while the former may need to be pursued more rigorously and be faced with harsher enforcement. This would allow for better allocation of resources and reduced enforcement costs, and it may also serve as an incentive for voluntary compliance (Scholz, 1984).

PHASE III—Review

Industry reviews are a key driving force behind the deregulation of the sugar industry in both India and Australia. In India, a series of committees culminated in the partial deregulation of the industry in 2013. Similarly, in Australia, it took several federal government and government/industry task force reviews to convince the Queensland government to deregulate the sugar industry in 2006 (Craigie, 2014).

Industry reviews are important for effecting radical change within an industry. Even though recommendations are often disregarded, they contribute materially in driving impetus for change. Additionally, they develop a sense of surveillance among producers, encouraging better commercial practices overall.

As such, the setting up of a collaborative task force or committee consisting of both government officials and industry representatives to conduct comprehensive reviews of the sugar industry from time to time to objectively identify impediments to progression and advocate for appropriate reform is recommended.

PHASE IV—Amendments to Laws and Other Initiatives to Promote Competition

As evidenced by the results of the Inquiry Commission Report 2020 and the recent CCP judgment, cartelisation and political influence of mills has been an enduring problem for the industry. Furthermore, there have been repeated calls among the academia pushing the importance Research and Development initiatives by the Government to combat productivity and yield inefficiencies in order to boost the competitiveness of the industry (Khan & Jamil, 2004; Qureshi & Afghan, 2020).

The existing regulatory framework for the sugar industry in Pakistan has several shortcomings, including:

- The unsatisfactory definition of the "Occupier of the Factory" per s 2(k) of the Sugar Factories Control Act 1950, which allows the actual owners of sugar mills to evade responsibility for violations by pinning the liability on to 'managing agents' which often tend not much more than simple employees at the factory.
- Cane Purchase Receipts, which are not directly legally enforceable.
- Price fixation provisions that cause more problems than they solve in the long term.

• Criminal violations under the 1950 Act that are non-cognizable and bailable allowing opportunities to escape proceedings among others.

Additionally, the management of various aspects of the sugar industry is spread out across several departments and ministries, which leads to a lack of coherence and inefficiencies. For example, there is the Office of the Cane Commissioner under the provincial Food Departments, separate Extension Departments responsible for agricultural R&D and training programs, the Agricultural Policy Institute under the Ministry of National Food Security and Research, the Sugar Advisory Board and Controller-General under the Ministry of Industries & Production and the CCP dealing with competition laws and accountability. Consolidation of the regulatory network and amendment of the shortcomings in the existing framework could potentially make a significant difference for the Pakistani sugar sector.

Finally, there is the problem of outdated agricultural practises which have prevented sugarcane farmers from overcoming production constraints. This is largely due to the fact that most farmers tend to be illiterate and lack the knowledge and funds necessary to adopt more scientific cultivation practices. This is reflected in a disappointing yield of 50-57 tonnes per hectare and recovery of 9-10 percent compared to the potential for 150-250 tonnes per hectare yield along with 10-12 percent recovery (Raza & Amir, 2021). To counter this, Pakistan does have several research institutions, including some mills dedicated to R&D for cane however, these have been unable to produce results due to poor management and insufficient funding. Reportedly, the Federal Government, via the ECC decided that 15 percent of the Provincial sugarcane development funds was to be allocated for R&D but failed to follow through with implementation (Khan & Jamil, 2004). Even the performance of Provincial Extension departments has been considered lacklustre with the under-utilisation of the Cess fund which was originally envisioned to, among other objectives, generate funds for sugarcane research (Qureshi & Afghan, 2020). As a result, there has been a great deal of emphasis in literature on the need for quality R&D and Extension programs dedicated solely to sugarcane research and designed to help farmers adopt modern agronomic practices (Iqbal & Iqbal, 2014).

The following recommendations are made:

- Amendments to the law with view to overcoming the gaps in the legal framework.
- Create a Single Regulator with a dedicated focus on supporting sugarcane cultivation and overseeing all aspects of sugar production, marketing, and import/export. This regulator would formulate and implement strategic development plans to benefit all industry stakeholders and ensure long-term sustainability. Its main role should be providing proactive support, including farmer training and timely law enforcement, rather than being solely a vehicle for government intervention during crises.
- Remove unnecessary barriers to entry into the industry such as regulatory prerequisites for the setting up and running of sugar mills. Further study may be required for this.
- Increased focus on the robust enforcement of competition and antitrust laws.
- Revitalisation of and increased funding for R&D and Extension programs.

PHASE V—Deregulation

The Australian experience with deregulation offers valuable lessons. The sugar industry in Australia was heavily regulated, with price controls, marketing restrictions, and assigned areas. Despite calls for deregulation, concerns about farmer vulnerability to mill monopolies kept the government cautious. However, eventually embracing deregulation transformed Australia into a major sugar producer. This success didn't happen overnight or in isolation.

Deregulation involves removing or simplifying government rules that limit market forces. Not all regulations need to be abolished, especially those related to essential services or rural community support, like food safety standards and natural resource protection. When considering significant deregulation, it's crucial to identify vulnerable stakeholders and provide support and risk management tools.

The Australian example demonstrates that, with the right support, farmers and stakeholders can adapt and become more resilient. Agriculture should be viewed as a regular industry, with farm operations as typical businesses. Regulations can hinder efficiency and innovation in agriculture, discouraging risk-taking, and preventing the industry from reaching its full potential. Ultimately, excessive regulations result in a loss of national welfare.

To ensure successful deregulation, the following considerations must be taken into account:

- Significant power imbalances between stakeholders must have been correct e.g. farmers must have a unified representative association, with a functioning and reliable mode of recourse in case of abuses of power.
- Eradication of monopolistic abuses of mills and effective mechanisms to prevent future cartelisation/collusion.
- The process of deregulation must be transparent, and stakeholders must be made aware of what to expect in a deregulated market.
- Availability of appropriate adjustment programs to ameliorate the negative impact of change to those most vulnerable to it.

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