# **Current Status of Swadeshi Enterprises of Bengal**

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### **Abstract**

This paper analyses in detail, the Swadeshi enterprises/institutions of Bengal that were established during British rule. The study focuses on the present status, (as of 2019), of the Swadeshi enterprises of Bengal for the period between 1820s and 1947. Data consisting of 1946 Swadeshi enterprises, segregated into 26 different categories/sectors, has been collected using secondary sources. The survival status of the Swadeshi enterprises has been analysed based on the nature of technology used in the production process and the production objectives of the Swadeshi firms. To understand the dominant traits of the current owners of the presently active Swadeshi firms based on entrepreneurs' social identity, primary data have been collected, with a set of questionnaires, by the in-depth direct interview of at least one owner of each 26 different categories of industries documented in the study of the surviving Swadeshi entrepreneurs.

## Keywords

Swadeshi entrepreneur, Bengal industry, indigenous technology, social identity, Bengal partition

### Introduction

This paper analyses in detail, the Swadeshi enterprises/institutions of Bengal that were established during British rule. 'Swadeshi entrepreneurs' include small, middle and big bourgeoisie who were neither brokers nor intermediaries of colonial foreign capital.

From the point of view of economics and business, the Swadeshi movement aimed at the regeneration of the production of indigenous goods. During the long

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period of the anti-colonial movement, Swadeshi ideas of different aspects took shape: handicraft industries showed signs of revival, modern industries were set up and technical education was disseminated through the newly constructed technical institutions (Sarkar, 2013).

These enterprises operated in different sectors like textile, chemical, pharmaceutical (Ayurveda, homeopathy and allopathy), perfumery, hair oil, ink, type, leather, tobacco, paper, match sticks, iron-foundries, pottery, shipping, banking, insurance shipping, soap, milk products, umbrella, nib, pen, pencil, penholder, comb, button, waterproof, hurricane, lantern, electric lamp, fan, flashlight, glass, conch bangles, etc.

The production and regeneration of indigenous goods and services by the Swadeshi enterprises can broadly be put into the following four different categories:

- (i) Swadeshi enterprises with local technology
- (ii) Swadeshi enterprises with borrowed technology
- (iii) Swadeshi enterprises for substituting imported products
- (iv) Swadeshi enterprises to meet basic needs and demands

The small and middle bourgeoisie played a very important role in the Swadeshi movement. Unlike the big bourgeoisie, they were neither brokers nor intermediaries of foreign capital. They were self-reliant in capital, management and marketing. Although they depended to some extent on foreign machinery, there were many examples of self-reliance in this field too. Despite their limitations, they sought to be self-reliant in the field of technology (Bhattacharya, 2005). In any study of the indigenous enterprise in the Swadeshi era, the small and middle bourgeoisie deserve special importance.

## Idea of Swadeshi

The Oxford English dictionary describes 'Swadeshi' as an adjective that originated from the Sanskrit word 'svadesiya' meaning 'of one's own country'. Literally, it means 'of one's country'; movement to encourage the consumption of goods made in India (Misra, 1999).

The term Swadeshi was used originally with reference to a nationalist movement advocating Indian-made products. When we speak of *Swadeshi*, we generally think of the period which was directly linked with the third partition of Bengal (1905). In a broader sense, however, it embraces a larger period. The idea of Swadeshi gets its roots in the early 19th century when Bengal was ruled by the British East India Company.

# Period of the Study

The study focuses on the present status, (as of 2019), of the Swadeshi enterprises of Bengal, which were built between 1820s and 1947.

The origin of the Swadeshi awakening among educated upper-caste Hindu Bengalis can be traced to the Charter Act of 1813 where it was decided that the Company's commercial monopoly in India should go. The Charter Act of 1813 deprived the Company of its commercial monopoly.

The other most important clauses of the Charter Act of 1813 were that a sum of rupees one lakh annually was provided for the revival and improvement of the literature and encouragement of the learned natives of India and for the introduction and promotion of knowledge of the sciences among the inhabitants of the British territories in India.

This was the first step towards acceptance of the principle of State responsibility for education and wellbeing. In 1817 Hindu College was established in Calcutta. A young Anglo-Indian, Henry Vivian Derozio, who taught at the Hindu College in 1826, launched the Young Bengal Movement, a radical movement for the reform of Hindu Society, with his students. Young Bengal played an important role in carrying forward the reformist movement that had already emerged in the province. The Hindu college and Young Bengal emerged as the torch bearers of Bengali renaissance of the early 19th century (Ghosh, 1979).

In 1947, Bengal got divided into two parts. East Bengal became part of Pakistan and the other part, the West Bengal remained with India.

# Enterprises of Bengal

'Enterprises of Bengal' are the ones that were/are managed by entrepreneurs who lived/live in Bengal,<sup>2</sup> have settled in the state for their living and consider Bengal as their first home.

# Geographical Boundaries

The pre-independence period of the study (1820–1947) focuses on the geographical space of the Bengal Presidency that existed till 1911. Bihar and Orissa were also part of the Presidency. From 1912 to 1947, Bengal comprised of the present-day Bangladesh and West Bengal.

# **Objectives**

In this paper, we shall explore answers to the following questions:

- (i) What is the current survival status of the Swadeshi enterprises Bengal?
- (ii) Did nature of technology used in the production process have impact on the survival rate of Swadeshi enterprises?
- (iii) Did production objectives of the Swadeshi firms have impact on their survival rate?
- (iv) What are the dominant traits of the current owners of the presently active Swadeshi firms?

# **Methodology**

### **Data Collection**

Data have been collected from primary and secondary sources. Though the lists of Swadeshi firms are not exhaustive, utmost efforts have been put to identify the registered firms of the period under study.

The Primary Data. To address the last question, a set of questionnaires, developed by Alsos et al. (2016) to study the entrepreneurs' social identity and the preference of causal and effectual behaviours in start-up processes, has been used for indepth direct interview of at least one owner of the surviving Swadeshi enterprises of 26 different categories of industries documented by the study.

The feedback received from 30 respondents is being analysed applying exploratory factor analysis method. SPSS Statistical package has been used. A snowball survey method has been used for identifying the sample respondents.

# The Secondary Sources of Data.

- (i) Old advertisements in magazines: Various issues of 'Bharati Masik Patrika', Editor: Swarna Kumari Devi, Bangabda 1321 Kartik-Chaitra.
- (ii) Books: Tripathi (1954), Bagchi (1972), Ray (2011), Bhattacharya (2007, 2014), Tripathi (2013), Misra (1999), Sarkar (2014), Biswakarma (n.d.), Ghosh (1960) and Ghosh (1979)
- (iii) Trade and business directories: Ministry of Corporate Affairs, Swadeshi Directory 1933, Directorate of Factories (www.wbfactories.com), Just Dial App, Archival documents at various Chambers of Commerce, Calcutta Stock Exchange Directory 1946.
- (iv) Websites: www.zaubacorp.com, https://www.dnb.com/business-directory

A database of the Swadeshi enterprises has been created using an excel spreadsheet. Descriptive statistical methods have been used to analyse the collected data.

Data points on 1946 Swadeshi enterprises have been documented in the following fields: (i) Serial no; (ii) name of the enterprise; (iii) year of establishment; (iv) name of promoter; (v) sector (vi) sub-sector; (vii) main products/services (viii) status; (ix) address; (x) production objective (import substitution/domestic market and export) (xi) product type (traditional/new product); (xii) type of technology used (indigenous/oriental/western)

### **Survival Status**

In total, 1,946 Swedish firms are documented in our period of study and those have been segregated into 26 different categories/sectors. From Table 1, we find that out of these large number of Swadeshi firms, only 348 (17.88%) are presently *Active*, 20 (1.03%) have been *Merged*, 472 (24.25%) of them have the status of either *Closed Under liquidation or Strike off or Dormant* and the rest 1,106 (56.83%) no information has been found and hence can be considered as not active or being merged with others.

Table 1. Present Status of Swadeshi Firms.

					Status				
SI No.	Sectors	Active	Closed	Merged	No Information	Strike Off	Under Liquidation	Total	Percentage Active*
I.	Appliances	3	П		9	8	I	32	9.4
2.	Chemicals	31	12	2	107	17	6	175	19
3.	Confectioneries, beverages and eateries	49	3	I	63	7		123	40.6
4.	Cooking ingredients	14	I		16	2		33	42.4
5.	Film and music	11	12		3	2		28	39.3
6.	Fine art	3	1		12			16	18.8
7.	Health	53	6		61	4	2	126	42
8.	Hosiery	16	29		31	4		80	20
9.	Jewellery and ivory	14	I		10	3		28	50
10.	Leather goods	3	I		46		1	51	5.9
11.	Lubricants and paints	8	I		10	8		27	29.6
12.	Matchsticks and fireworks		10		74		2	86	0
13.	Metals	10	3		124	15	I	153	6.5
14.	Miscellaneous	10	11	I	74	4	2	102	10.8
15.	Paper cardboard	8	2	I	34	4	I	50	18
16.	Potteries, ceramics and glass	20	7	I	26	7	2	63	33.3
17.	Printing and publishing	21	25	I	73	10	4	134	16.4
18.	Rubber	7			8	4	1	20	35
19.	Services	5	8	10	21	26	76	146	10.3
20.	Textile	24	8		23	27	7	89	27
21.	Textiles accessories	3	3		46	I		53	5.7
22.	Tobacco	2	4		19	I		26	7.7
23.	Toiletry and cosmetics	15	8	3	152	12	I	191	9.4
24.	Tools and ma- chineries	8	4		37	2	I	52	15.4
25.	Transportation	4	18		9	6	1	38	10.5
26.	Waterproofs	6			18			24	25
	Grand total	348	189	20	1,106	174	109	1,946	17.8

**Source:** Pivoted from the main database, prepared by the authors. \*Percentage active in terms of total no. of firms in each sector has been calculated by the author

# Sector-wise Analysis

Table 2 documents the percentage of active firms in each sub-sector—within the broad sector. If we analyse sector and sub-sector data of Table 1 and Table 2, we find:

- 1. There are overall 9.4% identified Swadeshi appliance companies which are presently active. Two sub-sectors have been identified within appliances: (a) Electrical appliances where 12.5% firms are presently active; (b) Non-electrical appliances, where 6.25% firms are presently active.
- 2. In the chemicals sector overall 19% of the identified Swadeshi firms are active. It has the following sub-sectors: (a) Acid and battery, where 35% are found active; (b) Ink, boot polish and metal polish, where 14% of the firms are active; (c) Insecticides and fertilisers, where 16.67% of the firms are presently active; and (d) Cement and lime, where 25% of the firms are active. In total, 17% of the other Swadeshi Chemical manufacturers are active.
- 3. Overall 40.6% of the identified Swadeshi confectioneries, beverages and eateries are presently active. It has the following sub-sectors: (a) Confectioneries and bakeries, in which 28.9% are found active; (b) Beverages, in which 55% of the firms are active; and (c) 100% Eateries are active.
- 4. In cooking ingredients sector, overall 42.4% of all Swadeshi firms are presently active. The number of active firms in the sub-sectors are (a) salt, where 75% of the firms are active, (b) sugar, where 35% of the processing firms are active, (c) spices, where 80% manufacturers are active, and (d) all the documented oil mills are closed.
- 5. In film and music sector, 39.3% of all the identified Swadeshi companies are presently active. It has the following sub-sectors: (a) 30% of the Swadeshi film production houses are active, (b) all music record companies are closed, and (c) 80% of musical instrument manufacturers are active.
- 6. In total, 18.8% of all the identified Swadeshi fine art firms are presently active. Its sub-sectors include (a) art work and canvass producers, where 12.5% of the firms are active and (b) clay model, where 25% of the Swadeshi idols making studios are active.
- 7. In the health sector, ayurveda firms and institutions came up as an indigenous method to treat diseases in parallel to the allopath, which was introduced by Europeans. Allopath was used to treat the Europeans and the higher-class society. Hence, ayurveda was extensively used for the common people of Bengal. Presently, 48% of the documented Swadeshi ayurvedic companies and institutions are active.
  - Later many Bengalis studied allopath, thus allopath was also practiced in Bengal and a few institutions were started by the Bengali doctors. Presently, 36% of the documented Swadeshi allopath companies and institutions are active. Homeopathy was also practised by eminent doctors

like Dr Mahendra Lal Sarkar. Presently, 42% of the Swadeshi homeopath companies and institutions are active. In the surgical instruments subsector, 55% of the Swadeshi firms are active. In the overall health sector, 42% of the documented firms and institutions are still active.

- 8. In the hosiery industry, 20% of the identified firms are active.
- 9. In total, 50% of the overall documented Swadeshi jewellery and ivory are active. It includes the following sub-sectors: (a) 68.75% active gold item manufacturers, (b) 33% active silver item manufacturers, and (c) 16.7% ivory item manufacturers.
- 10. In total, 5.9% of the overall documented leather goods manufacturers are active. It includes the following sub-sectors: (a) Footwear, which has presently 40% active Swadeshi firms; (b) Tanneries and leather item manufacturers, which has presently 2.18% active Swadeshi firms.
- 11. In total, 29.6% of all documented lubricants and paints are presently active.
- 12. Most of the matchstick and fireworks manufacturing companies that started during the pre-independence period are either closed or no information regarding them are available hence we can consider them as being closed.
- 13. In total, 6.5% of all identified metal companies are active. The metal sector has been divided into the following sub-sectors: (a) Iron and steel, in which, 5.9% of the identified Swadeshi firms are active; (b) Aluminium, brass, bell metal and bronze, in which, 12% of the firms are active.
- 14. Intotal, 10.8% of the identified Swadeshi miscellaneous item manufacturers are presently active. It includes (a) educational accessory manufacturers, in which, 5% of the firms are presently active and (b) miscellaneous accessories, in which, 15% of the firms are presently active.
- 15. In total, 18% of the paper and cardboard manufacturing companies are active, which includes the following sub-sectors: (a) Paper manufacturers, where, 11% of the identified Swadeshi firms are active; (b) Paper traders, where 60% of the identified Swadeshi firms are active.
- 16. In total, 33.3% of all identified Swadeshi potteries, ceramics and glassware manufacturing companies are active. It includes (a) potteries, where 29% of the firms are presently active, (b) glass works, where 29% of the firms are presently active, and (c) ceramics and tiles, where 39% of the firms are presently active.
- 17. The printing and publishing sector had immense importance before independence since, unlike the present day, the print media (newspapers, journals and magazines) was the most important and one of the very few mediums of propagating nationalism. Most of the editors were involved in the nationalist movement. Only 16.4% of the printing and publishing companies are still active out of which advertising companies account to 100% active, printing press account to 17% active, publishing companies account to 15% active and type foundries and block makers account to 8% active companies.

- In total, 35% of all identified Swadeshi rubber companies are presently active.
- 19. The banking institutions within the services sector that funded the Swadeshi business were either shutdown, sold off or merged because the owners resided in one part and their business operations remained in another part of Bengal. These institutions incurred huge losses. Only 10.3% of the service sector companies are still active. The banking sector accounts to only 0.926% active, insurance sector accounts to 7.7% active, tourism accounts to 100% active and all the Circus companies are closed.
- 20. The textile industry had domestic demand but due to the emergence of power looms the handloom sector faced a huge setback. The partition led to unequal division of jute-producing lands and jute-processing factories. Hence, it faced a huge loss. Moreover, the state's share of jute export duty was slashed. Overall 27% of the firms producing textile goods during preindependence are still active out of which 16% cotton goods manufacturing companies, 56% jute processing companies and 35.7% silk items manufacturing companies are active.
- 21. In the textile accessories industry, 5.7% of all identified firms are active. This sector has the following sub-sectors: (a) Buttons, in which none of the Swadeshi manufacturing companies are active; (b) Lace, thread and needle, in which 12.5% of the identified Swadeshi firms are active.
- 22. In Tobacco sector, 7.7% of all identified firms are active. It includes the following sub-sectors: (a) Cigarettes, in which 4.5% Swadeshi manufacturers are presently active; (b) Beedi, in which, 100% of the identified Swadeshi manufacturing firms are active; and (c) All the identified *Zarda* companies are closed.
- 23. In total, 9.4% of all identified toiletries and cosmetics are active, which includes (a) toiletries, where 5.8% of the identified firms are active and (b) cosmetics, where 10% firms are active.
- 24. In total, 15.4% of all identified tools and machinery firms are presently active.
- 25. Ramdulal Dey Sarkar, Motilal Seal, Ramgopal Mullick and Madan Dutta were eminent ship owners who had expertise in the valuation of wrecked ships. Various Swadeshi steamer companies were set by Bengali entrepreneurs. However, the Swadeshi steamers (mainly the passenger vessels) could not compete with the European ones due to lower pricing by the European vessels. The Swadeshi steam engine ferries have been replaced by fuel-powered vessels. The Automated and motorised vehicles diminished the demand of Swadeshi non-motorised means of transportation. Presently 14.3% of the documented Swadeshi motor car companies, 11% of the Swadeshi non-motorised bicycle, tricycle and rickshaws, 9.5% of the shipping companies are active and 0% railway track laying companies are active. Overall, 10.5% of the companies in the transportation sector are still active.
- 26. We find 25% of the total waterproofs producing companies are still active out of which raincoats account to 100% active, tarpaulins account to 7.7% active, and umbrella account to 33.3% active.

**Table 2.** Percentage of Active Swadeshi Firms in Each Sub-sector—Within the Broad Sector.

SI No.	Sectors	Sub-sector	No. of Swadeshi Enterprises	No. of Active Swadeshi Enterprises at Present	Percentage of Active Firms
I.	Appliances	Electrical appliances: Fan, bulbs/electric lamps and electrical supplies	16	2	12.5
		Non-electrical appliances: Clock, cooker, flashlights, lamps/hurricane/lantern, water filter	16	1	6.25
2.	Chemical	Acid and battery	20	7	35
		Ink, boot polish and metal polish	92	13	14
		Insecticides and fertilisers	18	3	16.67
		Cement and lime	4	1	25
		Others	41	7	17
3.	Confectioneries, beverages and	Confectionaries sweetmeats, bakery, shoti food	90	26	28.9
	eateries	Beverages: Tea, syrup	22	12	55
		Eateries	11	11	100
4.	Cooking ingre-	Salt	4	3	75
	dients	Sugar	20	7	35
		Spices	5	4	80
		Oil	3	0	0
		Rice mills	0	0	0
5.	5. Film and music	Film production house	10	3	30
		Music record	8	0	0
		Musical instruments	10	8	80
6.	Fine art	Art work and canvass	8	ı	12.5
		Clay model	8	2	25
7.	Health	Allopath	58	21	36
		Ayurveda	33	16	48
		Homeopathy	24	10	42
		Surgical instruments	11	6	55
8.	Hosiery	NA	80	16	20
9.	Jewellery and	Gold	16	11	68.75
	ivory	lvory	6	ı	16.7
		Silver	6	2	33
10.	Leather goods	Footwear	5	2	40
		Tanneries and leather items	46	I	2.18
11.	Lubricants and paints	Lubricating oil and paints	27	8	29.6
12.	Matchsticks and	Matchsticks and matchbox	84	0	0
	fireworks	Fireworks	2	0	0
13.	Metals	Iron and steel	136	8	5.9
		Aluminium, brass, bell metal and bronze	17	2	12

(Table 2 contined)

(Table 2 contined)

SI No.	Sectors	Sub-sector	No. of Swadeshi Enterprises	No. of Active Swadeshi Enterprises at Present	Percentage of Active Firms
14.	Miscellaneous	Educational accessory	56	3	5
		Miscellaneous accessories	46	7	15
15.	Paper and cardboard	Paper manufacturer: Paper, envelope, card- board box, carbon paper	45	5	П
		Paper trader	5	3	60
16.	Potteries,	Ceramics and tiles	18	7	39
	ceramics and glass	Glass work	24	7	29
	8	Pottery	21	6	29
17.	Printing and	Advertising	3	3	100
	publishing	Publishing: Newspaper/ magazine, publishing co.'s	40	6	15
		Printing	54	9	17
		Block makers and type foundries	36	3	8
18.	Rubber	NA	20	7	35
19.	Services	Banking <sup>a</sup>	108	1	0.926
		Insurance	26	2	7.7
		Tourism	1	1	100
		Circus	4	0	0
		Other services	7	1	14.3
20.	Textile	Cotton	57	9	16
		Jute	18	10	56
		Silk	14	5	35.7
21.	Textiles acces-	Button	29	0	0
	sories	Lace, thread and needle	24	3	12.5
22.	Tobacco	Cigarettes	22	1	4.5
		Beedi	1	1	100
		Zarda	3	0	0
23.	Toiletries and cosmetics	Toiletries: Brush, comb, razor, soap and tooth paste/powder	104	6	5.8
		Cosmetics: Cream, hair oil, perfumery, vermillion	87	9	10
24.	Tools and machineries	NA	52	8	15
25.	Transportation	Bicycle, tricycle and rickshaw	9	I	11
		Motor cars	7	1	14.3
		Shipping	21	2	9.5
		Railway track	1	0	0
26.	Waterproofs	Raincoats	2	2	100
		Tarpaulins and other waterproofs	13	1	7.7
		Umbrella	9	3	33.3

Source: Compiled by the authors on the basis of the main data tables prepared by them.

**Note:** <sup>a</sup> Few banks were merged or sold off and their previous identities have been totally erased. Hence, we cannot consider them as active.

# Higher Survival Records of Firms Those Opted for Indigenous Technology

Here, western technology is broadly defined as those technologies which use steam or electric power. By indigenous technology, we define the traditional technology of India those which do not entirely depend on steam or electric power. By oriental technology, we mean the technology that had been adopted from the other parts of Asia.

From Table 3, we observe that out of the 1,191 firms that had implemented western technology of manufacturing process, 193 (i.e., 16.2%) are presently active, and out of 696 firms that had implemented indigenous technology, 150 (i.e., 21.6%) are active.

In order to test whether the survival rate of the firms that implemented indigenous technology is more than the firms that implemented western technology, we tested whether the proportion of active firms to all firms that implemented western technology ( $P_1$ ) is less than the proportion of active firms to all firms that implemented indigenous technology ( $P_2$ ).

We thus defined the null hypothesis as  $P_1 = P_2$  and alternative hypothesis as  $P_1 < P_2$ . Here, we have not considered the firms that implemented oriental technology because the number of firms is nominal in comparison to the other technologies.

From Table 3, we find,

$$n_1 = 1{,}191, n_2 = 696 \text{ and } p_1 = \frac{193}{1191} = 0.16 \text{ and } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_1 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 \text{ is } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = \frac{150}{696} = 0.22 \text{ and (here } p_2 = 0.22 \text{ a$$

the sample proportion of active firms to all firms that implemented western technology, and  $p_2$  is the sample proportion of active firms to all firms that implemented indigenous technology,  $n_1$ ,  $n_2$  are the no. of firms that implement western and indigenous technologies, respectively):

$$p = \frac{n_{1p_1} + n_{2p_2}}{n_{1+p_2}}$$
 is the estimate of *P*. The value of *p* is 0.1819.

Table 3. Status of Swadeshi Firms with Respect to Their Technology Usage.

	Status						
Technology	Active	Closed	Merged	No Information	Strike Off	Under Liquidation	Grand Total
Eastern/oriental technology	5	ı		53			59
Indigenous technology and process	150	33	15	354	61	83	696
Western technology and process	193	155	5	699	113	26	1,191
Grand total	348	189	20	1,106	174	109	1,946

**Source:** Compiled by the author on the basis of main data base prepared by them.

As  $n_1$  and  $n_2$  are large the statistic follows standard normal distribution approximately. The value of Z statistic is calculated by the following formula:

$$Z = \frac{p_1 - p_2}{\sqrt{p(1-p)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

The calculated value of Z is -3.26, which is less than 1.645, the  $Z_{0.05}$  (tabulated) value at the 5% level of significance. Thus, the value of Z statistic lies in the critical region. Hence, the null hypothesis has been rejected.<sup>3</sup>

Thus, we have sufficient evidence that there is a higher survival rate of the firms that implemented indigenous technology than the firms that implemented western technology.

From this analysis, we can infer that the firms that implemented indigenous technology have better performance and ability to sustain than the ones that implemented western technology. Thus, the type of technology that was implemented in the production process of different items had affected the sustainability of the firms. Firms those applied indigenous technology showed better survival record.

# Lower Survival Record of Firms Established with the Objective of 'Import Substitution'

From Table 4, we observe that out of the 1,195 firms that catered to 'domestic demand and export', 235 (i.e., 19%) are presently active and out of 751 firms documented under the category 'import substitution' 113 (i.e., 15.04%) are active.

In order to test whether the survival rate of the firms that catered to domestic demand and export have higher chance of survival than the ones that catered to import substitutes we test whether the proportion of active firms to all firms that catered to 'domestic demand and export'  $(P_1)$  is greater than the proportion of active firms to all firms those fall under the category 'import substitution'  $(P_2)$ . We thus define the null hypothesis as  $P_1 = P_2$  and alternative hypothesis as  $P_1 > P_2$ .

Status/Production Objective	Domestic Demand and Export	Import Substitution	Grand Total
Active	235	113	348
Closed	110	79	189
Merged	16	4	20
No information	651	455	1,106
Strike off	93	81	174
Under liquidation	90	19	109
Grand total	1,195	751	1,946

**Table 4.** Status of the Swadeshi Firms with Respect to Their Production Objectives.

Source: Compiled by the author on the basis of main database prepared by them.

Table 5. Darwinian Identity Variables.

Variables (V)	Measurement Items
VI	The opportunity to create economic value and to create personal wealthover time has been an important driving force
V2	To me, the focus on profitability is the most important
V3	To me, success is that my business shows better financial performancecompared to competitors.

Source: Alsos et al. (2016).

Table 6. Communitarian Identity Variables.

Variables (V)	Measurement Items
V4	Our main motivation is related to offering a good and novel product that we know people have use for
V5	To us, to be true to the original idea and deliver products of high quality to our customer segments, is most important
V6	To us, success is that our products work well for those that are supposed to use them

Source: Alsos et al. (2016)

Table 7. Missionary Identity Variables.

Variables (V)	Measurement Items
V7	Our main motivation is that through our firm, we can pursue values that are important to us or a particular cause (e.g., social, sustainability or other)
V8	To us, success is that the firm can contribute to changes that make society a better place
V9	It is important to us that we manage to show that there are other and better ways to do things in accordance with our values

Source: Alsos et al. (2016)

From Table 4 we find,

$$n_1 = 1{,}195$$
 and  $n_2 = 751$  and  $P_1 = \frac{235}{1195} = 0.197$  and  $P_2 = \frac{113}{751} = 0.15$  and (here

 $p_1$  is the sample proportion of active firms to total firms with domestic demand objective and  $p_2$  is the sample proportion of active firms to total firms with import substitution objective and  $n_1$ ,  $n_2$  are the no. of firms that produced with domestic demand and import substitution objectives, respectively.

$$p = \frac{n_{1p_1} + n_{2p_2}}{n_{1+p_2}}$$
 is the estimate of *P*. The value of *p* is 0.179.

As  $n_1$  and  $n_2$  are large the statistic follows standard normal distribution approximately. The value of Z statistic is calculated by the following formula:

Factor	Variables	Variable Names	Dominant Factors	Median	Modal Values
(F) FI	(V1V9) V4	Our main motivation is related to offering a good and novel product that we know people have use for	Communitarian	6	7
	V5	To us, to be true to the original idea and deliver products of high quality to our customer segments, is most important		7	7
	V6	To us, success is that our products work well for those that are supposed to use them		6	6
	V7	Our main motivation is that through our firm, we can pursue values that are important to us or a particular cause (for example, social, sustainability or other)		5	5
	V8	To us, success is that the firm can contribute to changes that make society a better place		5	5
	V9	It is important to us that we manage to show that there are other and better ways to do things in accordance with our values		6	6
F2	VI	For us, the opportunity to create economic value and to create personal wealth over time has been an important driving force.	Darwinian identity	5	6
	V2	To us, the focus on profitability is the most important		4	4
	V3	To us, success is that my business shows better financial performance compared to competitors		4	3

Table 8. Identified Dominant Factors Based on SPSS Output.

**Source:** SPSS output (refer Annexure 2).

$$Z = \frac{p_1 - p_2}{\sqrt{p(1-p)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Here, the calculated value of Z is 2.63, which is greater than the  $Z_{0.05}$  (tabulated) value at a 5% level of significance, that is, 1.645 and hence the value of Z statistic lies in the critical region. Thus, we reject the null hypothesis and have sufficient evidence that firms under domestic demand and export category have higher survival rate than the firms under 'import substitution' category.

From this analysis, we can infer that the firms that were established with the objective to substitute imports had less chance of survival than those firms which were formed primarily to serve the basic needs of the people.

# Survey on Active Swadeshi Firms

A set of questionnaires to study the entrepreneurs' social identity and the preference of causal and effectual behaviours of the surviving Swadeshi entrepreneurs has been used for the in-depth direct interview of at least one owner of each 26 different categories of industries documented by the study. Nine questions to measure the three types of *dominant identities* (refer Table 5,6,7) of the entrepreneurs, as developed by Alsos et al. (2016), have been used (Annexure 1).

The authors have built on Fauchart and Gruber's (2011) typology of the following three primary types of entrepreneurial social identities: Darwinian, communitarian and missionary identities. The typology was developed based on the following three identity dimensions: basic social motivation, basis of self-evaluation and frame of reference/relevant others. According to them, the *Darwinian identity* represents the identity of the 'classic entrepreneur' who has the primary goal of establishing a strong and successful business and a focus on ensuring the success of the firm. *Communitarian identity* could be developed based on those motivated strongly by a hobby or leisure interest that then develop a business to support a group of likeminded individuals. *Missionary identity* is motivated by starting a firm to advance a greater cause, and acting responsibly is considered to be critical. Hence, their motivation is closely connected to social entrepreneurship (Alsos et al., 2016).

A snowball sampling method has been used to identify samples from business communities. The respondents were the descendants of the Swadeshi entrepreneurs, who are still carrying the legacy of business of their forefathers after several generations.

A 7-point Likert scale has been used to measure their perception. 7 = very strongly agree, 6 = strongly agree, 5 = agree, 4 = neither agree nor disagree, 3 = disagree, 2 = strongly disagree, 1 = very strongly disagree.

Entrepreneurs with a *Darwinian identity* are described as focusing on establishing strong and profitable firms. Although they may be attracted to the industry and the products they produce and deliver, they devote most of their attention to activities aimed at ensuring the firm's success

Communitarian identity is described as being strongly engaged in the products or activities produced and delivered by their firm and enthused by their ability to contribute to the community with their products. They see their entrepreneurial activities as important for the development of the community

Entrepreneurs with a *missionary identity* are described by their strong beliefs in their firm as a vehicle for change for some aspect of society. They see their firms as a platform from which they can pursue their societal goals. This goal orientation is not focused on profit or expected return in the classical sense, but it can still be argued that they are adopting the causal principle of taking the end as their basis for action.

# Survey Findings

Responses from the descendants of 30 Swadeshi entrepreneurs have been received. An exploratory factor analysis has given the following output (please refer to Annexure 2 for details).

KMO value: 0.715,

Total variance explained: 70.4%.

Exploratory factor analysis has extracted two principal factors as under:

Variables with high factor loadings (>0.5, on the basis of the rotated component matrix) have been clubbed into two factors as under.

The SPSS output reveals that

- The entrepreneurs have strong communitarian and missionary identity (F1), which explains over 53% of variance of the input data.
- Their Darwinian identity is rather weak (F2), which explains nearly 17% of the variance of the data.

From these findings, we can infer that the new generation owners of the surviving Swadeshi entrepreneurs of Bengal exhibit strong communitarian and missionary identities (refer Table 8). Their Darwinian identity is weak.

These preliminary findings on the dominant traits of the present generation of Bengali entrepreneurs are noteworthy. Further in-depth research will help to understand the decision-making process of Bengali entrepreneurs. It will add considerable knowledge to the near non-existent management dissertation on Bengali entrepreneurs' social identities.

# Significance and Limitation of the Study

The study has revealed the survival status of Swadeshi enterprises in 26 major sectors and 55 sub-sectors. It has also revealed the survival status of enterprises that have used indigenous/oriental/western technology. Moreover, the study has analysed the survival rate of the enterprises on the basis of their production objectives.

This empirical study has provided little basic information on the Swadeshi enterprises of Bengal, which would prompt many more studies in future.

One major limitation of the present study is the small sample size of the primary data collected through questionnaire survey. Due to lack of adequate number of data points, only exploratory factor analysis has been attempted.

### Conclusion

Survival rate of Swadeshi enterprises are not good. Baring few sectors like confectioneries, beverages and eateries, cooking ingredients, film and music, health, jewellery and ivory, pottery, etc, in all other major sectors, the survival rate is very low.

The study shows that the firms that implemented indigenous technology have better performance and ability to sustain than the ones that implemented Western technology.

The firms that were established with the objective to substitute imports had less chance of survival than those firms which were formed primarily to serve the basic needs of the people.

An exploratory factor analysis on the traits of the new generation owners of the surviving Swadeshi entrepreneurs of Bengal, exhibits *communitarian and missionary identities*. Their *Darwinian identity* is weak.

# Annexure I. Questionnaire for Swadeshi Entrepreneurs of Bengal.

Please indicate your perception on the following statements mentioning any number between 1 and 7. We are using a 7-point Likert Scale to understand your perception.

7 = very strongly agree, 6 = strongly agree, 5 = agree, 4 = neither agree nor disagree, 3 = disagree, 2 = strongly disagree, 1 = very strongly disagree

- For us, the opportunity to create economic value and to create personal wealth over time has been an important driving force.
- To us, the focus on profitability is the most important.
- To us, success is that my business shows better financial performance compared to competitors.
- Our main motivation is related to offering a good and novel product that we know people have use for.
- To us, to be true to the original idea and deliver products of high quality to our customer segments is most important.
- To us, success is that our products work well for those that are supposed to
  use them.
- Our main motivation is that through our firm, we can pursue values that are important to us or a particular cause (for example, social, sustainability or other).
- To us, success is that the firm can contribute to changes that make society a better place.
- It is important to us that we manage to show that there are other and better ways to do things in accordance with our values.

Name:

Organisation:

Year of establishment:

Present status of the organisation: In operation/merged/ closed

*Names of initial promoters:* 

Any other information:

Date:

# Annexure 2.

#### Total Variance Explained

	Initial Eigenvalues			Extraction	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	4.778	53.092	53.092	4.778	53.092	53.092	4.722	52.462	52.462	
2	1.556	17.287	70.379	1.556	17.287	70.379	1.613	17.917	70.379	
3	.895	9.943	80.322							
4	.729	8.095	88.417							
5	.517	5.747	94.164							
6	.293	3.257	97.420							
7	.122	1.351	98.771							
8	.071	.794	99.565							
9	.039	.435	100.000							

Extraction Method: Principal Component Analysis.

### Rotated Component Matrix<sup>a</sup>

	Comp	onent
	1	2
VAR00001	.296	.596
VAR00002	169	.857
VAR00003	.074	.629
VAR00004	.940	.059
VAR00005	.958	073
VAR00006	.968	072
VAR00007	.825	.128
VAR00008	.879	.189
VAR00009	.640	.246

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

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 (i) In 1824, following the First Anglo-Burmese War, Assam was occupied by the British forces and on 24 February 1826 it had ceded to Britain. In 1826 Assam was included in the Bengal Presidency. The boundaries of different divisions of Bengal Presidency, under British rule, were repeatedly changed to make this region economically and administratively viable for British self-rulers. The first partition of Bengal dates back

to 6 February 1874, when Assam, was severed from Bengal to form the Assam Chief-Commissionership (also known as the North-East Frontier Agency-NEFA). Historian J B Bhattacharjee (2005) (https://www.jstor.org/stable/44145915?seq=1) had termed this as the 'first partition of Bengal'. (ii) In the same year (1874) Goalpara (present day Kokrajhar, Bongaigaon, Dhubri and Goalpara districts of Assam), which came under the Bengal Presidency in 1765 from its former rulers Koch kings, was annexed (second partition) to Assam (Misra, 2004). In September 1874 Sylhet was separated from the Bengal Presidency and added to the new province (Hossain, 2013). This was the second partition of Bengal.

- 2. Undivided Bengal.
- 3. Ideally there is no need for conducting any test of significance as the proportions are calculated on the basis of population data. However, these tests are done on the presumption that the population data is not exhaustive and proportion has been calculated on a data set which has been collected from various known sources only.

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