

# SCENARIOS IN THE PHILIPPINE PRINTING AND PUBLISHING INDUSTRY AND IMPLICATIONS FOR GOVERNMENT PROMOTION OF SMALL AND MEDIUM-SCALE ENTERPRISES

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*The printing and publishing industry in the Philippines is not unlike other industries in the manufacturing sector currently affected by economic factors as a consequence of government policies -- such as interest rates on short and long-term loans and foreign exchange rates. Still others are adversely disadvantaged by conditions of fragmentation among smaller firms resulting in diseconomies of scale.*

*This article looks at the situations of large and small printers and publishers and analyzes their more serious problems, particularly financing. Long-term prospects for growth and for exports are positive developments as demand for printing and publishing services grows with the growing economy.*

This study identifies the principal factors that will adversely affect the Philippine printing and publishing industry in the nineteen-nineties, particularly with respect to the operations of small or medium-sized firms in the industry. The identified factors are: 1) depreciation of the Philippine currency, 2) high interest rates, and 3) unavailability of long-term financing. Certain positive prospects facing the industry are also described.

## INDUSTRY BACKGROUND

The first commercial printing press in the country was established in 1855 when Yam Yan Cheong came from Hongkong to reside in the Philippines.<sup>1</sup> In 1880, another printing press was established by Don Salvador Chofre, a Spaniard. This press printed government circulars and sweepstakes tickets,<sup>2</sup> and its ownership had already changed hands several times after the retirement of its

founder when it was acquired by Don Jesus Cacho in 1927 who renamed the firm Cacho Hermanos. In 1887, a third printing press, Carmelo & Bauermann, was established by Don Eulalio Carmelo Y Lakandula and Herr William Bauermann.<sup>3</sup>

Cacho Hermanos and Carmelo & Bauermann are still operating today. Some 135 years after the establishment of the first commercial press in the country, the growth and development by the industry cannot be considered impressive. Among the top 1,000 corporations, printing and publishing establishments account for less than one percent of the total sales of the firms belonging to the manufacturing sector. This percentage decreased from 0.79% in 1986 to 0.43% in 1988 (See Table 1.) Viewed comparatively, Singapore and Hongkong are already exporting printed materials in large quantities while the Philippine printing and publishing industry still caters mainly to the domestic market. A large percentage of Philippine exports goes to Saudi Arabia in the form of newspapers or periodicals which are ultimately purchased by Filipino overseas workers (See Table 2.) On the other hand, Hongkong and Singapore export printed materials to the United States, Europe and Australia (See Table 3.)

<sup>1</sup> Ten-Year Development Plan for Printing and Publishing Sector, John Clements Consultants, Inc., (Board of Investments) p. II-2.

<sup>2</sup> *Ibid.*, p. II-2.

<sup>3</sup> *Ibid.*, p. II-3.

**Table 1**  
**NET SALES**  
**TOP 1,000 FIRMS**  
**TOTAL MANUFACTURING SECTOR AND TOTAL PRINTING INDUSTRY**

	1988	1987	1986
Total manufacturing sector	₱231,487,269	₱170,456,747	₱173,191,547
Printing Industry			
Commercial/Job Printing	289,460	346,778	195,676
Printing/Publishing	24,860	20,337	
Printing of Newspapers	180,180	527,473	526,297
Others (including allied printing)	493,414	790,459	640,482
<b>TOTAL</b>	<b>₱ 987,914</b>	<b>₱ 1,685,047</b>	<b>₱ 1,362,455</b>
No. of Firms	(10)	(24)	(20)
% of Printing Industry Sales to total manufacturing	0.43%	0.40%	0.79%

Source: Top 1000 Corporations in the Philippines.

**Table 2**  
**COUNTRY EXPORTS OF PRINTED MATERIALS**  
**1986**

	Philippines (in US\$) (000)	Singapore (in Sing\$) (000)	Hongkong (in HK\$) (000)	Indonesia (in US\$) (000)
Newspapers/ periodicals/ magazines	373		165,556	13
Books	64	116,000	953,267	142
Comic books	44			
Religious books	43			
Children's books		18,500	17,165	
Pictures/Postcards/ Greeting Cards			113,658	
Paper/Paper board labels			163,858	
Calendars			50,770	
Postage stamps			6,926	
Advertising materials			86,831	
Maps/charts				3
Others	95	7,500	220,067	20
<b>TOTAL</b>	<b>619</b>	<b>142,000</b>	<b>1,778,098</b>	<b>178</b>
Total (in US\$, 000) <sup>a/</sup>	619	76,757	228,547	178

Source: Ten-Year Development Plan for Printing and Publishing Subsector (Board of Investments)

<sup>a/</sup>Based on May 1990 FX rate

**Table 3**  
**HONGKONG, SINGAPORE & PHILIPPINE EXPORTS OF PRINTED MATERIALS**  
**By Country of Destination**  
**1986**

Country of Destination	Philippines %	Hongkong %	Singapore %
Australia	4.7	9.2	26.33
Canada		2.2	
China, PRO		18.7	
India		1.6	4.79
Japan	7.9		
Macao		1.8	
Malaysia			8.94
Saudi Arabia	50.7		
Singapore	5.8	4.1	
Taiwan		6.5	
United Kingdom		11.9	9.65
United States	23.7	23.6	18.80
Others	7.2	18.6	31.49
	100%	100%	100%

Source: Ten-Year Development Plan for Printing and Publishing Subsector (Board of Investments)

## INDUSTRY STRUCTURE

The firms in the industry may be classified into two major categories, as follows:

1. Publisher-Printers - those whose major line of business is the printing of books, newspapers or magazines for sale to the public.
2. Job and Commercial Printers - those whose major line of business is the printing of materials as ordered by specific customers.

The first category of printers assumes the risk of marketing their particular outputs. If the firms miscalculate the demand for their products, the firms incur inventory losses, e.g., books. The second category of printers include firms that accept specific job orders from customers. If the production of the order is in accordance with the specifications of the customers, the output is considered sold.

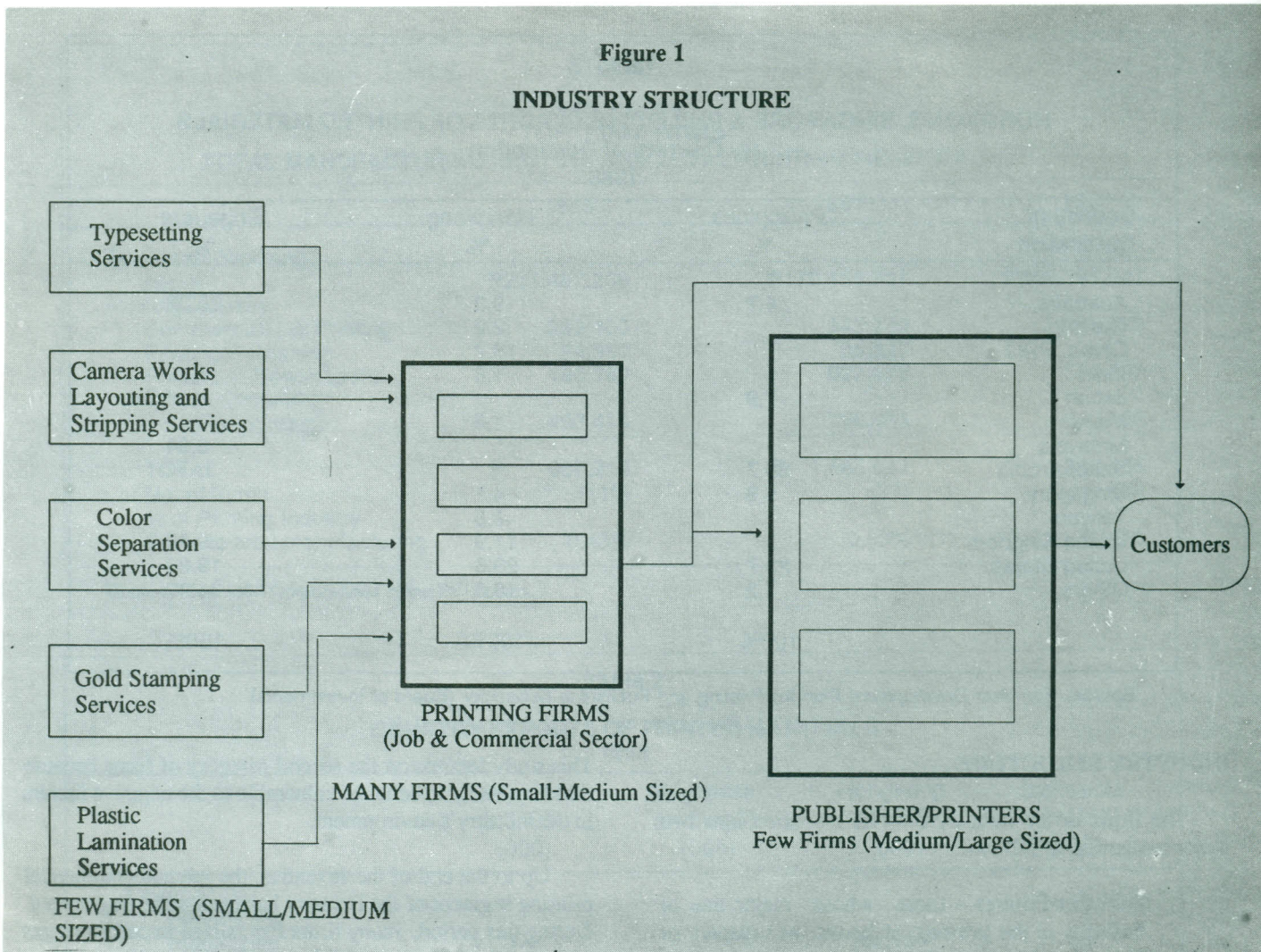
Firms belonging to the first category of printers are relatively larger than the firms belonging to the second category and accounts for approximately 70% of the total industry sales. Many smaller firms are sub-contractors to big publishers and printers belonging to the first category.

This study focuses on the second category of firms because these are likely to be more vulnerable to the negative factors in the industry's environment.

Up to the end of the seventies, the job and commercial printing segment of the industry has been quite fragmented. During this period, many firms specialized in certain stages of the production process with some firms providing services to other small printing firms that could not acquire a complete line of printing machines and equipment. The latter group simply undertook the later stages of the printing process such as printing and binding and subcontracted the earlier process, such as typesetting, layouting and stripping. (See Figure 1 for specialized services provided by small/medium sized firms and appendix for the complete production process.)

The industry structure in the 80's remained more or less the same except for some decline in the number of sub-contractors to the small job and commercial printing firms. This was due to the fact that some establishments have resorted to backward integration and have acquired machineries or equipment required in the early stages of the printing process while many smaller firms that used to subcontract stages of the printing process have disappeared.

Figure 1  
INDUSTRY STRUCTURE



### DEPRECIATION OF PHILIPPINE CURRENCY

The industry depends heavily on imported machines from Europe, Japan and the United States. Table 4 depicts some importation data on printing machines classified as rotary press, platten printing press and other printing machinery. The same table shows a significant decline in the importation of machineries during the period 1983 to 1986 compared to the period 1981 to 1982. This could be explained by the initial effect of the depreciation of the Philippine currency starting 1983. Table 5 shows that the peso was devalued from ₱8.54 to US \$1.00 in 1982 to ₱20.38 to US \$1.00 in 1986.

Table 6 reveals that unit prices in Philippine currency of selected printing machineries have increased five times in

1990 relative to 1980 prices due to inflation and the depreciation of the Philippine peso. The inflation factor is seen in the prices of suppliers which were 1.5 to 1.6 times higher in 1990 as compared to the 1980 level. The devaluation factor increased the acquisition cost in 1990 by approximately 3.5 times as compared to 1980.

Other inputs required by printing and publishing firms, e.g., paper, ink and ink concentrates and films, are also imported and therefore affected by changes in the exchange rate. Although most commonly used paper materials are locally manufactured, local paper manufacturers import a large portion of their waste paper inputs as much as 90% in the production of paper. Table 7 shows importation data for ink and ink concentrates for the period 1987 to 1989.

**Table 4**  
**IMPORTATION OF PRINTING MACHINERIES**  
(In F.O.B. U.S. Dollars)

Year	Rotary Printing Press		Platten Printing Press		Printing Machinery Press		Total		% Increase (Decrease)
	Units	\$ (000)	Units	\$ (000)	Units	\$ (000)	Units	\$ (000)	
1981	156	2679	4108	331	9013	2209	13277	5210	
1982	154	3367	130	252	455	3972	750	7591	45.7
1983	127	1907	86	88	839	2818	1052	4813	(36.6)
1984	21	90	4	247	105	804	130	1141	(76.3)
1985	35	233	6	1	206	527	247	761	(33.3)
1986	65	722	35	357	237	952	337	2031	28.8
1987	116	2767	36	83	501	2722	653	5572	174.3
1988	76	1369	67	25	1030	4079	1173	5473	( 1.8)
1989	250	4405	36	28	1006	5551	1292	9984	82.4

Sources: Ten Year Development Plan for Printing and Publishing Subsector (Board of Investments) and Philippine Foreign Trade Statistics, 1987-1989

**Table 5**  
**PESO TO U.S. DOLLAR EXCHANGE RATE**  
1981 - 1990

Year	Exchange Rate
1981	7.899658
1982	8.540008
1983	11.112731
1984	16.698708
1985	18.607342
1986	20.385683
1987	20.567692
1988	21.094700
1989	21.736679
1990	21.652275 <sup>a/</sup>

Source: Central Bank Center for Statistical Information (CBCSI)  
Department of Economic Research - Domestic  
Central Bank of the Philippines, Manila

<sup>a/</sup>As of April 1990.

**Table 6**  
**PRICES OF SELECTED PRINTING EQUIPMENT**  
**1980 and 1990**

C & F Manila Prices					
		1980 Prices		1990 Prices	
Heidelberg Offset Printing Presses		DM	Peso Equivalent <sup>a</sup> (000)	DM	Peso Equivalent <sup>b</sup> (000)
Single Color	MO-E (19 x 25)	96,150.00	404	156,600.00	P 2,149
Single Color	SORM (20 x 28)	123,550.00	519	201,200.00	2,762
Two Color	MOZ (19 x 25)	212,900.00	895	346,800.00	4,760
Two Color	SORMZ (20 x 28)	214,800.00	903	349,800.00	4,801
Two Color	72Z (20 x 28)	292,600.00	1,230	476,600.00	6,542
Four Color	MOV (19 x 25)	544,000.00	2,287	886,100.00	12,163
Four Color	72V (20 x 28)	723,550.00	3,042	1,178,600.00	16,183
Five Color	72F (20 x 28)	877,800.00	3,691	1,429,900.00	19,628
Six Color	72S (20 x 28)	1,034,600.00	4,350	1,685,300.00	23,129
<b>Polar Cutters</b>					
Model	92 SDP (92 cm width)	DM 38,900.00	164	DM 60,100.00	823
	115 SDP (115 cm width)	50,250.00	211	78,000.00	1,071
	137 SDP (137 cm width)	64,500.00	271	100,100.00	,372
	155 SDP (155 cm width)	77,100.00	324	119,600.00	1,647
<b>Stahl Folding Machine</b>					
Model	KC 56 4KL	DM 48,700.00	205	DM 75,600.00	1,043
	Model KM 78 4KLL	55,400.00	233	86,000.00	1,180
<b>Muller Martini Perfect Binder</b>					
	Baby Pony 246	SFR 59,200.00	268	SFR 96,350.00	1,568

Source: EAC Graphics

<sup>a</sup>26 May 1980 FX rate: 1DM = ₱4.2044; 1SFR = ₱4.5353

<sup>b</sup>25 May 1990 FX rate: 1DM = ₱13.72; 1SFR = ₱16.23

**Table 7**  
**PHILIPPINE IMPORTATION OF PRINTING INK AND INK CONCENTRATES BY SOURCE**  
(In F.O.B. U.S. Dollars)  
1987 - 1989

Country of Origin	1987			1988			1989		
	Ink	Ink Conc.	Total	Ink	Ink Conc.	Total	Ink	Ink Conc.	T
United States	287,410	13,002	300,412	246,872	454	247,326	142,633	8,191	150,824
Sweden	2,056	-	-						
United Kingdom and North Ireland	1,200	178	1,378	69,167		69,167	57,369	197	57,566
Netherlands	10,703		10,703	2,471		2,471	455,303		455,303
France	327		327	2,094		2,-94	14,666		14,666
Germany, Federal Republic of	44,693	3,374	48,067	41,246	259	41,505	45,411		45,411
Switzerland	1,877,646		1,877,646	9,579		9,579	2,345,747		2,345,747
Italy				216		216			
Singapore	85,579		85,579	176,087	262	176,349	50,195		50,195
Korea, Republic of				793		793	1,239		1,239
Hongkong	10,653		10,653	20,344		20,344	10,872		10,872
Taiwan	1,529		1,529	3,463	1,500	4,963	8,543		8,543
Japan	101,446	3,435	104,881	93,345	273	93,618	109,815	1,744	111,559
Malaysia							396		396
Israel							23,763		23,763
Australia							413		413
<b>TOTAL</b>	<b>2,423,242</b>	<b>19,989</b>	<b>2,443,231</b>	<b>665,677</b>	<b>2,748</b>	<b>668,425</b>	<b>3,266,365</b>	<b>10,132</b>	<b>3,276,497</b>

Source: Philippine Foreign Trade Statistics, 1987-1989

Due to the high dependence of the industry on imported raw materials such as paper, ink/ink concentrates, films, future peso devaluations will result in higher working capital requirements for firms operating in this industry. Capital expenditures for expansion and replacement of existing facilities will, increasingly, require more long-term funds with further peso devaluations.

#### HIGH INTEREST RATES

High interest rates is inevitable in the nineteen-nineties since the government is expected to continue to float treasury bills (T-Bills) at high interest rates in order to con-

trol the amount of money in circulation and keep the inflation rate down. Increases in T-Bill rates, in turn, translate to higher costs of borrowing. During 1989, the T-bill rate for 91 days averaged 19%. During the same period, loans available for small/medium-size business firms at the DBP (IGLF) were approximately 19%. (See Table 8.) At this interest rate level, a firm will have to pay ₱19,000.00 annually for interest plus a one-time processing fee of ₱1,000.00 for every ₱100,000.00 borrowed. A high interest rate scenario in the nineties, coupled with further devaluations of the peso, can subsequently slow down the expansion or modernization of capital intensive Philippine industries including the printing or publishing industries.

**Table 8**  
**ANNUAL RATES ON 91-DAY TREASURY BILLS AND**  
**WEIGHTED AVERAGE INTEREST RATE (WAIR)**  
**ON SECURED LOANS**  
**1981-1990**

Year	91-Day T-Bill Rate (%)	Interest Rate on Secured Loans (%)
1981	12.606	17.119
1982	13.811	18.219
1983	14.173	19.331
1984	30.534 <i>a/</i>	26.743
1985	26.806 <i>a/</i>	28.234
1986	14.433 <i>a/</i>	17.348
1987	11.390	13.295
1988	14.406	15.998
1989	19.333	19.457
1990	25.248 <i>b/</i>	n.a.

Source: Central Bank Center for Statistical Information (CBCSI)  
 Department of Economic Research - Domestic  
 Central Bank of the Philippines, Manila

*a/* 91 - <183 days

*b/* As of April 1990

## UNAVAILABILITY OF LONG-TERM FINANCING

Firms in the printing industry need substantial funds for the acquisition of machineries and equipment which comprise 50% to 70% of a firm's total assets. In 1990, the cost of an offset printing machinery ranged from ₱2 million to ₱23 million while the cost of other printing equipment ranged from ₱800 thousand to ₱1.6 million. (see Table 6.) Due to the magnitude of the costs of machineries and equipment, firms in the industry need long-term loan financing to finance new acquisitions or to replace old machineries.

The Philippine financial system, however, is largely composed of commercial banks which account for about two-thirds of the total portfolio of the system. Loans granted by commercial banks are usually for a maximum of two years only. Development banks and other financial institutions implementing government loan programs for small or medium enterprises grant a maximum loan term of four years, still relatively a short period compared to the economic life of machineries which is approximately ten years. It is also a common practice in the industry to avail of supplier's credit but this form of financing involve higher interest rates and allow shorter loan periods, i.e., maximum of one-year only.

The amortization of loans over a relatively short-term period tend to put a strain on the liquidity position of the firms in the industry. Thus, the unavailability of longer-term loans slows down the growth of firms through delays in replacement of obsolete or depreciated machineries which slows down their modernization.

## FAVORABLE PROSPECTS FOR THE INDUSTRY

### Domestic Market

Good prospects in the domestic market may be expected arising from favorable opportunities observed in certain government policies as well as positive forecasts in other sectors and industries which require the services of the printing/publishing industry.

- Total enrollment in the country is expected to expand in the coming years due to a government policy of "Free Education" in the secondary level. Table 9 shows the NEDA Medium Term Development Plan (1987-1992) enrollment targets: The "Free Tuition" policy and the higher enrollment targets are expected to increase the potential demand for textbooks.



- The Instructional Materials Corporation (IMC) has a target of 20-35 million copies of books per year.<sup>4</sup> The IMC subcontracts the printing of textbooks to private firms.

which has already been fully utilized. The books printed and distributed under this program are used by students in public schools for free. The average printing cost of a book is ₱20.00 which, if sold by private publishers, would cost ₱40.<sup>6</sup>

**Table 9**  
**ENROLLMENT TARGETS**  
**1990 - 1992**  
**(000)**

Level	Year		
	1990	1991	1992
Elementary	10,094	10,221	10,331
Secondary	4,208	4,339	4,600
Tertiary	1,884	2,000	2,122
	<u>16,185</u>	<u>16,621</u>	<u>17,053</u>

In 1990, the IMC was appropriated ₱150 million for the printing of elementary textbooks and ₱70 million for secondary textbooks. The funds for elementary textbooks were provided by the government while the funds for the secondary textbooks comes from a loan provided by the Asian Development Bank.

- The demand for job/commercial printing services is expected to follow the positive growth trend in the other business sectors that utilize its services, e.g., footwear/garments, chemicals, toys, gifts and housewares and banks. The economy is expected to grow at 6.8% annually until 1992.<sup>5</sup> Furthermore, the Ten-Year Development Program of the Board of Investments for the Pulp and Paper manufacturing sector estimates the demand for newsprint to increase by an average of 6% annually and for printing and writing paper, by 4.6% annually.

### Export Market

The printing industry should tap the export market to replace the exhausted demand for printing services generated by the 1975 World Bank loan of \$25 million

The average Filipino household cannot afford this commercial price with its per capita income of ₱650 (as of 1989).<sup>7</sup>

However, to tap foreign markets, the industry must consider the following:

- 1) Printed materials for the foreign market require a number of colors, e.g., children's books, brochures, leaflets, postcards, calendars, labels, advertising materials and stamps. These are typical of products exported by Hongkong and Singapore.
- 2) The types of printed materials demanded in foreign markets will require good quality printing machines/equipment and highly skilled machine operators.
- 3) Large volume orders will require printing machines that have the capability to print at least two-colors at a time. These machines are three times more expensive than one-color machines. (In a 1976 survey by the Private Development Corporation of the Philippines, the thirty-six respondents indicated that 57% of their printing machines are single color presses, 24% are two-color presses, and the remaining 19% have four colors or more.)

<sup>4</sup>The IMC was created by Executive Order No. 806 on May 27, 1982 to implement the Government Textbook Project.

<sup>5</sup>Medium Term Philippine Development Plan (1987-1992) p. 13, (but has been recently adjusted to 5% for 1990.)

<sup>6</sup>Annex B - Sectoral Development Studies - Ten-Year Development Plan for Printing and Publishing Subsector.

<sup>7</sup>Asiaweek, Vol. 15, No. 43 (October 27, 1989), p. 6.

**Table 10**  
**PHILIPPINE IMPORTS OF PRINTED MATTER<sup>a</sup>**  
(In F.O.B. U.S. Dollars)  
1987 - 1989

Item	1987	1988	1989
College and high school textbooks	6,047	94,129	
Text, Workbook & supplementary reading for elementary grade by mechanic and bot., printed locally		19,898	
Text, Workbook and supplementary reading for elementary grade app. by mech. & bot., not locally printed		208,987	
Technical & scientific books	710,217	710,247	1,427,502
Brochures, pamphlets and leaflets, new issues	100,314	71,029	105,292
Prayer books, bibles, testaments and other religious books	327,517	495,004	496,095
Dictionaries and encyclopedias	7,253,244	6,058,143	5,934,641
Books, printed	4,578,128	9,757,136	8,448,739
Children's picture books and painting books	108,180	14,533	30,071
Atlases	182,575	12,164	24,086
Geographic maps, including printed globes	18,840	7,636	29,742
Charts, n.e.s., printed	4,957	35,748	5,389
Newspapers and periodicals, new issues	8,367	37,555	58,932
Magazines, reviews and journals, new issues	1,980,570	2,146,720	3,302,748
Comic magazines, new issues	8,744	-	2,430
Industrial transfers excluding ceramic transf. (decalcomanias), printed	160,370	100,797	237,647
Ceramic transfers	70,491	253,632	113,768
Picture postcards and picture greeting cards (excl. christmas cards)	14,255	7,886	31,913
Christmas cards	4,470	649	688
Paper and paperboard labels, printed whether or not gummed	2,392,973	1,799,281	2,898,039
Government revenue stamps, uncancelled, of current or new issues	-	2,447	-
Unsigned stocks, share and bond certificates & similar documents of title, incl. checkbooks (blank checks) & stamps impressed paper	83,406	24,138	526,171
Other calendars	12,409	43,326	42,538
Window transparencies used for advertisement or display purposes	-	-	-
Pictures/designs	5,811	19,486	33,405
Printed cards (e.g. visit card)			
Tickets for cinema/railway	2,796,239	16,313	88,622
Others (e.g. wrappers)	529,201	939,020	2,057,997
<b>TOTAL</b>	<u>21,357,825</u>	<u>22,875,904</u>	<u>25,896,867</u>

Source: Philippine Foreign Trade Statistics, 1987-1989.

<sup>a</sup>Excludes advertising materials of local firms sent abroad.

**Table 11-A**  
**PHILIPPINE EXPORTS OF PRINTED MATTER<sup>a</sup>**  
**(In F.O.B. U.S. Dollars)**  
**1987 - 1989**

Item	1987	1988	1989
College and high school textbooks	—	—	9,403
Brochures, pamphlets and leaflets (new issues)	24,973	4,421	10,947
Religious books	40,665	95,761	256,277
Dictionaries and encyclopedias	1,330	2,958	1,257
Other books	37,041	87,638	37,874
Children's books	4,891	14,859	1,040
Atlases	22,138	5,000	1,201
Charts	1,450	180	9,576
Newspapers, periodicals, (new issues)	23,053	242,727	216,384
Comic magazines	31,919	29,863	31,011
Picture postcards and picture greeting cards	15,834	43,487	36,120
Christmas cards	3,893	7,674	3,063
Paper, paperboard labels	122,858	137,489	125,102
Calendars	19,603	14,976	34,400
Others (e.g. wrappers, visiting cards, picture and designs, etc.)	20,688	50,469	41,471
<b>TOTAL</b>	<b>776,617</b>	<b>906,887</b>	<b>1,009,065</b>

Source: Philippine Foreign Trade Statistics, 1987-1989.

<sup>a</sup>Excludes advertising materials of local firms sent abroad.

**Table 11-B**  
**PHILIPPINE EXPORTS OF PRINTED MATTER BY COUNTRY OF DESTINATION<sup>a</sup>**  
**(In F.O.B. U.S. Dollars)**  
**1987-1988**

Country of Destination	1987		1988		1989	
	Value	%	Value	%	Value	%
Australia	16,739	2.16	17,165	1.89	26,389	2.62
Taiwan	24,154	3.11	43,765	4.83	23,997	2.38
France	14,014	1.80	6,860	.76	20,323	2.01
Hawaii	75,315	9.70	85,818	9.46	104,992	10.40
Hongkong	55,714	7.17	121,415	13.39	37,312	3.70
Indonesia	28,585	3.68	9,480	1.05	819	.08
Papua New Guinea	24,043	3.10	8,717	0.96	23,780	2.36
Saudi Arabia	362,354	44.66	310,652	34.25	284,298	28.17
U. S. A.	108,387	13.96	124,415	13.72	286,197	28.36
Other countries	67,312	0.66	178,600	19.69	200,958	19.92
<b>TOTAL</b>	<b>776,617</b>	<b>100.00</b>	<b>906,887</b>	<b>100.00</b>	<b>1,009,065</b>	<b>100.00</b>

Source: Philippine Foreign Trade Statistics, 1987-1989.

<sup>a</sup>Excludes advertising materials of local firms sent abroad.

**Table 12**  
**NET PHILIPPINE IMPORTS OF PRINTED MATTER<sup>a</sup>**  
**(In F.O.B. U.S. Dollars)**  
**1987 - 1989**

Item	1987	1988	1989
Total exports of printed matter	776,617	906,887	1,009,065
Total imports of printed matter	<u>21,357,825</u>	<u>22,875,904</u>	<u>25,896,867</u>
Net export (import) of printed matter	(20,581,208)	(21,969,017)	(24,887,802)

Source: Philippine Foreign Trade Statistics, 1987-1989.

<sup>a</sup>Excludes advertising materials of local firms sent abroad.

**Table 13**  
**NUMBER OF ESTABLISHMENTS, AVERAGE ANNUAL EMPLOYMENT,**  
**AND AVERAGE NUMBER OF EMPLOYEES PER COMPANY**  
**PRINTING, PUBLISHING AND ALLIED INDUSTRIES**  
**1981 - 1987**

Year	Number of Establishments Surveyed	Employment (Average for the Year)	
		Total	Average Per Company
1981	1,366	23,165	17
1982	1,384	24,567	18
1983	353	15,111	43
1984	350	13,267	38
1985	354	14,447	41
1986	380	16,476	43
1987	366	16,819	46

Sources: Philippine Statistical Year Book, 1986-1989.  
Annual Survey of Establishments, 1981 - 1986  
Ten-Year Development Plan for Printing and Publishing Sector, *op.cit.*, pp. 111-133.

### "Import" Market

The industry could tap a significant portion of the market for imported printed materials. Many establishments in the Philippines still go to Hongkong for "quality" printing. Tables 10 and 11 A/B show the annual Philippine importation and exportation, respectively, of printed materials for the period 1987 to 1989. Comparison of the two tables show that the Philippines is still a net importing country as far as printed materials is concerned.

### CONCLUSIONS

- 1) Although the prospects in the domestic market are favorable, firms with inadequate capital will face financial difficulties within the decade due to increased financial requirements, high financing costs, and unavailability of a long-term source of financing. Firms which will survive will be relatively larger and more vertically integrated. This contention is supported by the trend exhibited in Table 13 which shows that the average number of employees per company has increased from 16 in 1981 to 46 in 1987. Thus, subcontractors for the early stages of the production process, e.g. typesetting, camera works, stripping, and plating will decrease in number. Sub-contractors for the later

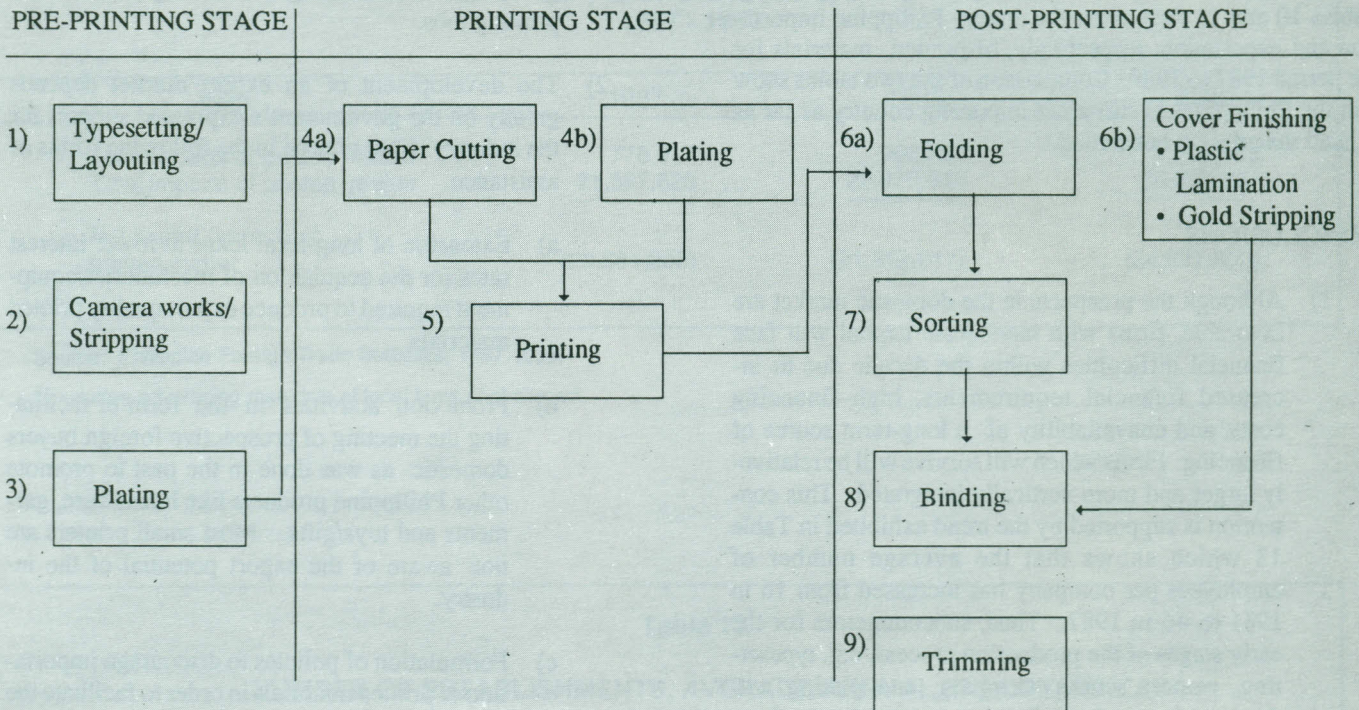
stages of the printing process, e.g., gold stamping and plastic lamination, may continue to have a market since the firms remaining in the industry are unlikely to integrate into these processes. Gold stamping and laminating are not required in most printing jobs.

- 2) The development of an export market depends greatly on the government's expressed support for the industry. This may be in the following forms of assistance.
  - a) Extension of long-term loans at lower interest rates for the acquisition of machineries/equipment required to produce export quality printed materials.
  - b) Promotion activities in the form of facilitating the meeting of prospective foreign buyers domestic as was done in the past to promote other Philippine products like houseware, garments and toys/gifts. Most small printers are not aware of the export potential of the industry.
  - c) Formulation of policies to discourage importation of printed materials in order to facilitate the technological development of local printers.

## A. Flow Chart

## APPENDIX

## TYPICAL PRINTING PROCESS



NOTE: Numbers indicate chronological steps in the printing process.

## B. Process Definitions

**Typesetting and Layouting** - involves the typing of text materials to be printed using equipment that have the capability to produce different types, sizes and intensity of impressions, e.g., light or bold, modern typesetting machines also have the capability of layouting the materials for printing.

**Camera works/Stripping** Reproducing the prepared paper layouts into films and putting these films together into "Flats". This is done manually.

**Plating** - Transferring the images of the "flats" into plates using a plating machine. A flat or a plate usually fits the print size of the printing equipment. The plates are attached to the printing equipment.

**Paper Cutting** - Cutting the paper into print size.

**Printing** - The impressions on the plates are transferred to paper by the printing equipment, one color at a time, if it's a one-color equipment. The maximum is four colors at a time with the use of a four-color equipment.

**Folding** - This process involves folding the printed paper in preparation for binding — manually or mechanically.

**Plastic Lamination** - Coating the paper (usually book covers) with plastic to achieve a glossy effect by mechanical process.

**Gold Stamping** - Printing using "gold" prints.

**Sorting** - Arranging pages in numerical or appropriate order - manually or mechanically.

**Binding** - Gluing together the pages and cover of a printed matter, e.g. book binding.

**Trimming** - Cutting the edges of the printed matter.