MARKET SHARE AND PROFITABILITY: THE CASE OF THE PHILIPPINE COMMERCIAL BANKS

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This paper attempts mainly to substantiate the hypothesis that market share and profitability are positively correlated. An examination of data from the Philippine commercial banking industry confirmed the positive link between market share and profitability, although the impact of the Philippine National Bank (PNB) distorted the relationship presumably because PNB may have been operating beyond the most efficient scale during the period examined.

The link between profitability and market share is an interesting issue to many corporate presidents and marketing managers. A research project undertaken by the Harvard Business School on the Profit Impact of Market Strategies (PIMS) using data from 57 companies came up with a strong and positive correlation between market share and return on investment (ROI). The PIMS project also indicated that "the importance of share varies considerably from one type of industry or market situation to another".[1]

This study examines the relationship between profitability and market share in the Philippine setting. Specifically, it attempts to analyze the strength of the relationship between profitability and market share within a single industry, the commercial banking system, which is a dominant force as well as the most regulated sector in the Philippine economy. The data on which this study is based come from Business Day's *1000 Corporations in the Philippines* (1984 to 1986 editions) and Mahal Kong Pilipinas Foundation's *Philippines' Best 1000 Corporations* (1988 Edition).

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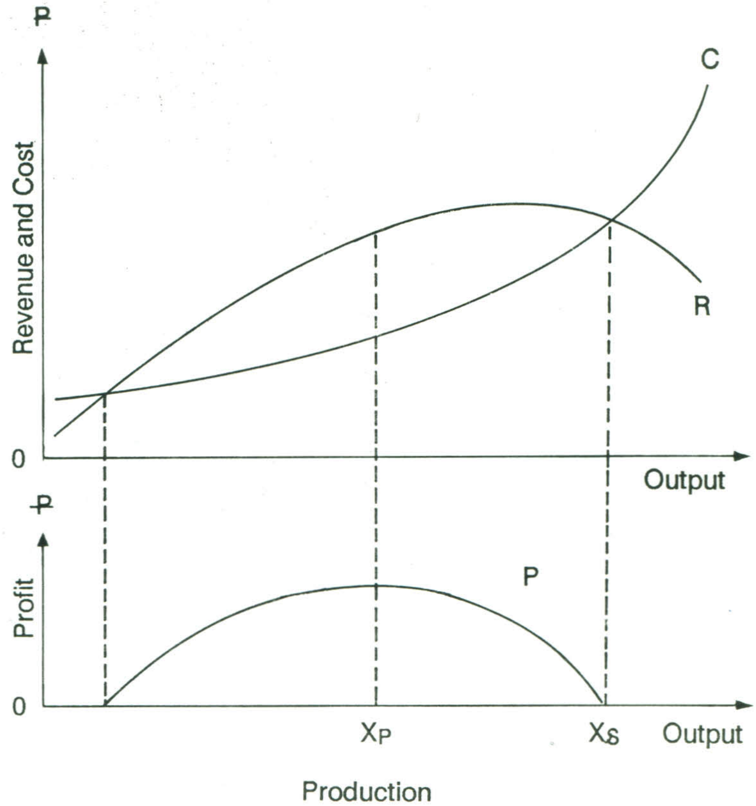
The market share of each bank is simply its peso sales in a given year, expressed as a percentage of the banking industry's total market sales. Three measures of profitability are utilized: (a) return on sales, (b) return on equity, and (c) return on assets.

MARKET SHARE - PROFITABILITY TRADE-OFF

The trade-off between sales or market-share- maximization and profit-maximization is shown in Figure 1. The upper panel shows the effects of the volume of sales (X) on total revenue (R) and total cost (C). The lower panel shows a curve representing total profit (P) which is derived from the total revenue and total cost curves in the upper panel. At output X_S, R = C and P is zero. Thus, X_S corresponds to the sales-maximizing point. In contrast, Xp corresponds to the profit-maximizing sales volume because it is the point where R has the greatest distance over the C curve. Note that the sales-maximizing point (X_S) is attained by giving up higher profits by moving away from the profit-maximizing sales volume (Xp). What is postulated in this section is that after reaching a satisfactory level of profit, commercial banks choose to try to increase its market share rather than to maximize profit. It is therefore expected that, in the short-run, the correlation between market share and profitability is negative.

[1] Robert Buzzell, Bradley Gale, and Ralph Sultan, "Market Share -A Key to Profitability", Harvard Business Review, (January-February 1975): 97-106. Another work based on the PIMS project which attempted to establish the relationship between strategic planning and profit performance is that by Sidney Schoeffler, Robert Buzzell, and Donald Heany, "Impact of Strategic Planning on Profit Performance", Harvard Business Review, (March - April 1974): 137-145.

Figure 1
Trade-Off Between Market-Share and Profitability



THE FINDINGS

The market share for each commercial bank from 1983 to 1987 is shown in Table 1. Notice that the state-owned Philippine National Bank (PNB) is still the biggest but has a declining share for this period. The other major unibanks, such as Bank of the Philippine Islands (BPI), Far East Bank and Trust Company (FEBTC), Philippine Commercial and International Bank (PCIB), Metropolitan Bank and Trust Company (MBTC), and United Coconut Planters Bank (UCPB), have aggressively increased their market shares over the same period. Looking at market share in terms of assets, the same pattern as observed in Table 1 will emerge.

The trends in market share indicate that PNB's greatest reduction in market share occurred in the 1983-84 period, that is, at the height of the economic crisis. In contrast, UCPB gained its greatest share in the same period. It must be noted that the major private commercial banks have accumulated their greatest market shares during the 1986-87 recovery period. The trends in asset share[2] follow the pattern that is observed in market share.

Data on return on stockholders' equity[3] are shown in Table 2. It is evident that commercial banks have tremendously improved their performance in 1986 and 1987. In terms of return on investment (ROI), FEBTC ranked among the best performers during the crisis years, that is, from 1983 to 1985.

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[2] Data on trends in market and asset are available from the author upon request.

[3] Rate of return on sales as well as on assets were also estimated. They give the same information as provided by the rate of return on stockholder's equity.

Table 1. **MARKET SHARE[a] BY COMMERCIAL BANK: 1983 - 1987**

(in Percent)

BANK	1983	1984	1985	1986	1987
PNB	28.80	24.80	15.76	14.55	14.02
BPI	5.49	6.46	7.78	8.22	11.71
CITIBANK	10.08	11.46	13.25	13.64	9.52
FAR EAST BANK	3.58	4.81	5.82	6.41	8.33
PCIB	3.71	4.08	4.61	7.14	7.56
METROBANK	5.05	5.52	6.22	6.58	7.25
UCPB	3.92	3.99	6.74	6.65	7.00
RCBC	2.39	2.24	3.07	2.60	2.29
ALLIED (CONSOLIDATED BANK)	3.76	3.27	4.59	3.83	2.11
SOLIDBANK	2.11	1.63	2.41	2.51	2.94
CITYTRUST	1.43	2.00	2.83	2.76	2.91
EQUITABLE	1.44	1.37	1.34	2.05	2.82
PRUDENTIAL	1.21	1.10	2.37	2.34	2.27
HONGKONG AND SHANGHAI	1.17	1.00	1.69	1.89	2.46
INTERNATIONAL CORPORATE BANK	1.08	1.23	1.39	1.70	1.91
CHINA BANK	2.43	2.10	2.25	1.93	1.63
UNION BANK	0.86	1.30	2.14	1.76	1.02
SECURITY BANK	1.93	2.04	2.96	2.02	1.75
TRADERS	2.41	2.00	2.44	1.97	1.60
RPB	3.27	3.44	3.98	2.89	1.65
PHIL. BANK OF COMMUNICATIONS	1.65	1.44	1.57	1.24	1.23
PHIL. BANKING	1.54	1.22	1.36	1.57	1.58
PHILIPPINE TRUST CO.	0.56	0.57	0.74	1.07	1.20
COMMERCIAL BANK OF MANILA	0.42	0.57	0.84	0.83	0.66
STANDARD CHARTERED BANK	0.91	1.10	1.20	1.18	0.92
PILIPINAS BANK	0.28	0.55	0.65	0.64	0.65

Source: Top 1000 Corporations, 1985, 1987 and 1988 editions

[a]Markets share is computed as the percentage of each bank's net sales to total net sales.

Table 2. **RETURN ON STOCKHOLDERS' EQUITY BY COMMERCIAL BANK: 1983 - 1987**

(in Percent)

BANK	1983	1984	1985	1986	1987
PNB	5.84	(15.88)	(575.68)	(158.53)	28.46
BPI	19.67	22.29	22.07	17.85	18.86
CITIBANK	-	-	-	-	-
FAR EAST BANK	20.23	24.59	24.13	21.32	21.29
PCIB	7.33	11.53	12.28	21.81	17.18
METROBANK	17.44	19.27	15.59	14.82	22.74
UCPB	7.97	6.51	7.89	14.31	17.01
RCBC	12.34	12.19	13.02	15.05	14.92
ALLIED	8.95	9.26	26.52	11.84	10.99
SOLIDBANK	7.15	7.40	5.84	9.61	13.73
CITYTRUST	19.49	22.04	22.32	20.17	17.24
EQUITABLE	7.73	8.13	8.19	8.01	9.22
PRUDENTIAL	20.48	19.82	20.23	20.29	18.39
HONGKONG AND SHANGHAI	-	-	-	-	-
INTERNATIONAL CORPORATE BANK	3.01	6.49	12.13	13.25	14.01
CHINA BANK	9.81	8.03	2.15	6.45	13.78
UNION BANK	8.87	9.19	7.24	7.25	9.32
SECURITY BANK	12.89	15.64	12.43	4.98	8.63
TRADERS	12.67	13.95	3.74	4.97	5.94
RPB	8.0	7.17	9.39	5.85	2.32
PHIL. BANK OF COMMUNICATIONS	7.63	.95	4.81	9.24	10.03
PHIL. BANKING	5.25	1.31	(14.70)	.12	.44
PHILIPPINE TRUST CO.	5.86	7.42	10.60	6.55	6.47
COMMERCIAL BANK OF MANILA	8.82	17.80	9.10	8.90	2.74
STANDARD CHARTERED BANK	16.45	-	-	-	-
PILIPINAS BANK	(20.23)	10.23	7.21	4.37	2.41
AVERAGE	9.46	2.26	(35.85)	(8.07)	17.02

Source: Top 1000 Corporations, 1984, 1986, and 1988 editions.

Table 3. **CORRELATION BETWEEN MARKET SHARE AND PROFITABILITY**[a] **(All Banks)**

	1983-87	1983	1984	1985	1986	1987
1) Market Share and Return on Sales						
(A)	-.312*	.020	-.619*	-.768	-.658*	.407*
(B)	.162*	.238	-.121	.1	. 201	.223
2) Market Share and Return on Stockholder's Equity						
(A)	-.307*	.025	-.516*	-.772*	-.628*	.791*
(B)	.528	.466*	.445*	.504*	.672*	.716*
3) Market Share and Return on Asset						
(A)	-.313*	-.055	-.540*	-.685*	-.624*	.533
(B)	.206*	.195	-.077	.230	.284	.347

*Statistically significant at the 5 percent level.

[a]Correlation coefficients under Row A were estimated from all banks while those under Row B were estimated without including the data from Philippine National Bank.

Using information on market share, return on stockholders' equity, return on sales, and return on assets, the link between market share and profitability is shown in Table 3 (see Row A) which shows that a negative relationship between market share and profitability is evident. Since the study uses time-series data for a single industry, the correlation should have been positive because the trade-off between market share and profitability would probably be confirmed using cross-section or single- year data. However, Table 3 also indicates that when PNB's profitability becomes positive in 1987, the cross-section correlation coefficients between market share and profitability likewise become positive. This result has suggested that the correlation coefficients in Table 3 are negative simply because the huge market power exerted by PNB affected the results. In theory, the negative correlation between market share and profitability is plausible on the assumption that banks which have not yet attained some minimum level of market share pay a penalty in terms of lower rate of return. Therefore, we should test the hypothesis that the link between market share and profitability is positive provided that the dominant market influence of PNB is removed. Table 3 (see Row B) shows that the correlation coefficients between market and profitability become positive after dropping PNB from the database. Our findings are statistically significant and consistent with those of earlier studies.[4] The negative correlation between market share and profitability for PNB can also be explained as a result of operating beyond the most efficient scale.[5]

[4]Mario Lamberte, "An Analysis of the Behaviour of Commercial Banks", (Staff Paper No. 82-05, Philippine Institute for Development Studies, December 1982; and Cesar Saldaña, "The Philippine Commercial Banking System: Structure, Performance, and the Impact of Capital Build-up Program of 1972", Philippine Review of Economics and Business, (September-December 1984): 145-164. Lamberte defined profitability as current operating income divided by total net worth. Saldaña defined profitability as return on equity or ROE for the banking system instead of ROE or such bank. Both Lamberte and Saldaña used a relative definition of bank size by ranking banks in terms of asset size instead of percentage.

[5]Saldaña's study came up with this result. It likewise observed a positive relationship between ROE and bank size for the rest of the banks. See Cesar Saldaña, pp. 145-164.

Table 4. **RELATIONSHIPS OF MARKET SHARE TO KEY PROFITABILITY RATIOS FOR COMMERCIAL BANKS: 1983-1987**

PROFITABILITY RATIOS	MARKET SHARE (in Percent) Under & 1.5	1.51 - 3.0	3.01 - 4.50	4.51 - 6.0	6.01 - 7.50	7.51 - 9.0	9.01 - 10.50	Over 10.50
Net Income/ Net Sales	11.06	6.07	11.11	10.14	–	–	14.72	(42.22)
Net Income/ Total Assets	1.40	.66	1.37	1.19	–	–	1.79	(3.44)
Net Income/ Net Worth	10.52	7.78	13.43	19.06	–	–	–	(139.16)

Source: Computed from Tables 1 and 2 and from data on return on sales and return on assets.

MARKET SHARE - PROFITABILITY LINK AND BANKING STRATEGY

The strong link between market share and profitability necessitates that bank executives consider the formulation of market-share objectives as a crucial strategic issue even for a highly regulated banking industry. The Harvard PIMS[6] study has identified three market-share strategies: (1) *building* - an active effort to increase market share through product development and promotional programs; (2) *holding* - to maintain the existing level of market share; and (3) *harvesting* - to achieve an increase in short-term earnings and cash flow by allowing market share to decline.

The estimates presented in Table 4 show that there are no significant differences between high and low-share banks. The negative correlation in Table 3 is supported by Table 4 such that for banks with market share in excess of 10.5 percent, profitability declines (actually negative for the 1983-1987 period).

Table 5. **HOW ROI IS AFFECTED BY MARKET SHARE CHANGES**
AVERAGE ROI, 1983-1987

Market Share (1983)	Building: Up 1 point or more	Holding: Less than 1 point up or down	Harvesting: Down 1 point or more
Under 1.50%	–	10.52	–
1.51% to 3.0%	–	7.78	–
3.01% to 4.50%	22.31	11.21	–
4.51% to 6.0%	20.15	17.97	–
Over 6.0%	–	–	(139.16)

[6] Buzzell, Gale and Sultan, p. 103

Table 5 compares ROI data for banks with different beginning market shares and for banks with decreasing, steady, and increasing shares over the 1983-87 period. It reveals that Philippine commercial banks have generally adopted the "holding strategy". Since commercial banking is a highly regulated business dominated by a few dominant firms, the strategy of maintaining a bank's market position seems to be the most feasible. Nevertheless, for those banks pursuing the "building strategy", ROI is higher for banks with market share above three percent and up to six percent. It is likewise evident from Table 5 that it does not pay for banks to adopt the "harvesting strategy" simply because the strength of effective competition is not quite strong in an industry which restricts the entry of new firms through a system of banking regulations. Thus, even large- share banks failed to harvest successfully over the period 1983 to 1987. But we must also consider the influence of other factors in affecting the estimates in Table 5. For instance, PNB's decrease in its market share could be attributed to such factors as behest loans, bad debts,political interference, and rising costs.

SUMMARY

Time-series data for commercial banks reveal that market share is positively correlated with measures of profitability. This finding is consistent with the hypothesis that market-share increases are at the expense of profit performance for firms that have not yet attained some minimum level of market share. Thus, a highly concentrated bank would be associated with high returns.

Finally, the common strategic choice among banks is to adopt a policy of maintaining their existing market position. Of course, the influence of other factors has been recognized. But the consequences of a manager's actions in a highly regulated banking environment are some of the insights which the study attempts to convey. Banking executives, line managers, and strategic planners must recognize that the relationship between market share and profitability will surely be affected by a new policy such as the deregulation of the banking system.