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# Enhancing Egyptian savings and investment through instituting quality standards for the banking sector

## Abstract

The purpose of this study is to examine the performance of the Egyptian banking sector in order to assess how quality standards should be set to ensure that Egyptian banks can efficiently mobilize more savings and prudently channel them into productive sectors for investment. The sample was equally drawn from four categories consisting of state-owned, privately-owned domestic, foreign and Islamic banks. It starts by setting forth a measure of bank efficiency in enticing customers. Then, a field study is conducted to measure customer satisfaction. In this context, measuring the level of efficiency was performed through field surveys of employees, managers and customers of the banks. Afterwards, the sources of weakness of the banking sector are identified. Finally, remedies to enhance quality are proposed. The results of the empirical field study indicate that there are a number of barriers to quality services that are surprisingly common to all four categories of Egyptian banks. This implies that in spite of the inflow of foreign banks, their service quality standards were benchmarked in accordance with existing ones. Hence, one can safely conclude that foreign banks have not added much value to existing banking practices, but have rather crowded out existing banking firms.

**Keywords:** quality services, bank ownership, savings, investment.

**JEL Classification:** G21, E21.

## 1. History of the Egyptian banking sector

The Egyptian financial sector is an outcome of various sociopolitical and economic transformations that occurred during the last three decades. In the seventies, the "Open-Door Policy" adopted by Sadat resulted in the invitation of foreign and domestic capital into a predominantly state-owned banking sector. In order to encourage foreign capital inflows, the four large state-owned banks maintained 51% of shares in joint ownership with foreign owners. The results were not encouraging as after one full decade of openness banking concentration remained high with state-owned banks accounting for 80% of overall assets. It was not till the Structural Adjustment Program that was adopted in the wake of the nineties that public ownership dropped below 60% through the pulling out of state banks from partnerships with foreign banks. This left the banking sector with 62 banks, many of which were under-capitalized resulting in a severe banking crisis and a huge wave of non-performing loans. In response, the Egyptian government privatized a public bank, namely Bank of Alexandria, leading to a reduction of state-ownership to 51% (Omran, 2007).

## 2. Structure of the Egyptian banking sector

Consequent to two banking crises in 1997 and 2003, the Central Bank of Egypt (CBE) embarked on a reform program in 2004 enhancing the efficiency of the Egyptian banking sector especially that nonperforming loans exceeded 20% of the aggregate loan portfolio (MENA-OECD, 2006). Towards this purpose, the CBE established the Banking Reform Unit (BRU) to streamline the banking sector

through four main pillars. First, the CBE planned to privatize two of the four state-owned banks and to recapitalize the banking sector in accordance with the minimum capital requirements of the Basel Accord II, a task fully accomplished by 2006 (CBE, 2007). This reduced the total number of banks operating in Egypt from 57 in 2004 to 40 in 2008. Then, the BRU started its second goal of financial and managerial restructuring of state-owned banks. Third, non-performing loans were decreased by asset down-writing, mergers and acquisitions and the creation of a non-performing loan unit to expedite bad debt resolution in accordance with International Financial Reporting Standards. Finally, the CBE upgraded its supervision of banks in cooperation with the European Central Bank.

Deplorably, as ambitious as the plans of the BRU may be the results were less than satisfactory. During the last four years provisions have been made for only 46% of non-performing loans mostly through substantial debt forgiveness. To add insult to injury, the Egyptian government announced that the non-performing loans of public enterprises were sold to the National Investment Bank, a valuable arm of the government, for L.E. 6.9 billion (MENA-OECD, 2006). Therefore, these loans will be periodically repaid through tax-payers' money.

Also, while the sale process of one of the public banks, Bank of Alexandria, has been lucratively enacted at 6.1 times its book-value, the privatization process of Banque du Caire was delayed till 2011 due to wide complaints about the low sale price of state-owned assets. Moreover, it may be true that the share of public ownership in the banking sector has declined from 80% in 1998 to 60% as of 2005 and a

mere 54% in 2007, but this was mostly reached through the sale of state shares in 12 of the 17 joint-venture banks. Table 1 reveals that the Egyptian banking sector is still highly concentrated which undermines competition. Moreover, the banking density remains at a notoriously low level of 22.8 since a minority of 10% of the Egyptian population holds bank accounts. The banking concentration is not only with regards to ownership, but is more of a geographic concentration with high urban bias. Most private banks refrain from operating in rural areas, which home 54% of the Egyptian population, and hence there is a substantial proportion of rural savings that remain untapped. The ultimate result is that Egyptian savings have not increased during the period from the introduction of the Open Door Policy till 2009. Although low banking density is attributed to a low real per capita GDP of \$5899, high unemployment of 9.3% and soaring inflation amounting to 23.6% during 2008 (Handoussa, 2008), one cannot rule out the effect of mediocre banking services. Moreover, the global financial crisis has not left emerging economies such as Egypt impervious to this crisis.

Table 1. Distribution of Egyptian banks by type as of December 2008

Type of banks	Number of banks	Number of branches
State-owned banks	3	834
Specialized banks*	3	1253
Privately-owned domestic banks**	27	1109
Foreign banks	7	56
Total	40	3252

Notes: \* All specialized banks are fully state-owned, but extend loans for the purposes of real estate, agriculture and industrial development. \*\* Many of these banks still have public ownership, but the management and the Board of Directors are private.

Source: Economic Review (2007/2008) // *Central Bank of Egypt*, 2008, № 48(2). – 92 pp.

### 3. Literature review

A prominent problem facing many LDCs is stringently low levels of savings that frustrate efforts of economic growth and development. Analysts blame this on an inefficient banking sector that is incapable of developing quality standards. Various studies have been conducted to measure the difference between the performances of private domestic banks, private foreign ones and state-owned banks. Bonin, Hasan, and Wachtel (2005) signify that in transition economies private banks are more efficient than state-owned ones and that efficiency is highest in foreign-owned banks. However, in a study of the Egyptian banking sector,

Omran (2007) concludes that foreign ownership is not the determining factor of bank performance, but it is rather the privately owned banks per se that are more efficient. In a similar research conducted on Latin American cases Clarke and Cull (1999) reach the conclusion that the performance of privatized banks tends to reach the same efficiency of the already existing private banks. Hence, the literature has shown strong empirical evidence that banks with greater private ownership perform better. As a result, bank privatization was the ongoing trend during the last decade.

Even though the literature has been very rich in measuring the correlation between ownership and bank performance, there are sparse resources measuring the efficiency of banking services and its effect on national savings and investment. Traditionally, bank efficiency has been determined using the CAMELS Analysis; a direct application to Egypt is a study by Mohieldin and Nasr (2003) that proposes the use of the CAMELS Analysis framework to upgrade the performance of state-owned banks. Other methods introduced by Moncada and Harmon (2004) to enhance banking efficiency are the employment of international accounting standards and internal quality standards.

There is also an abundance of literature that focuses on supervisory controls and internal quality enhancement. The first set is concerned with measuring the effects of the banking sector efficiency in response to privatization, meeting capital requirements and enhanced central bank supervision in Egypt and the MENA region, i.e. Middle East and North Africa Region. Moreover, there is an equal large literature about setting forth quality standards by enhancing employee satisfaction and customer enticement. The first level is thoroughly covered in Jonas (2008), Sherman and Rupert (2006), Mostafa (2009), and Lensink and Meesters (2007). Specific applications to emerging economies are found in Omran (2007), Ben Naceur and Omran (2008), Claessens and Huizinga (2001) and Miller and Parkhe (2002). Other research efforts have attempted to develop certain methodologies to measure banking service efficiency as per the findings of Zenios and Soteriou (1997), Kissane et al. (2008), and Heskett, Sasser & Schlesinger (1997).

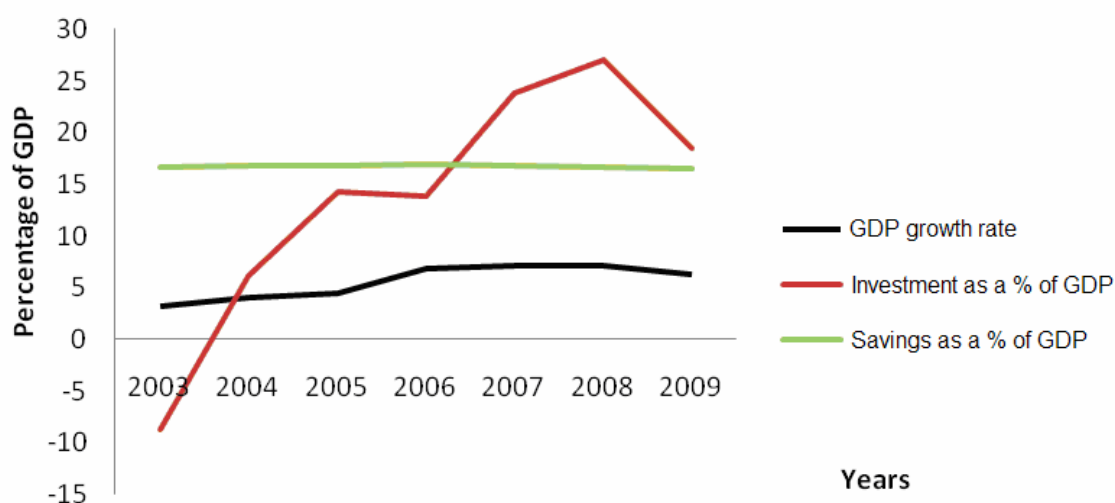
It is obvious that the empirical works measuring the quality standards of banking units in Egypt and the MENA Region remain highly limited. Hence, this research aims to fill this gap by studying the largest nation in the MENA region, an area of the world that lacks studies in the field of financial economics. The main purpose of this research is to propose methods of upgrading the efficiency of the Egyptian

banking sector instead of resorting to privatization of state-owned banks, a process that has aroused immense political opposition from various members of the Egyptian society. Its significance rests in trying to propose an agenda for reform for all banks regardless of the type of ownership.

#### 4. Significance of the study

In view of the negative outlook of the Egyptian economy, the total public debt is estimated to reach 84.5% of GDP by the end of 2009 due to the rise in foreign indebtedness to US\$ 29 billion (EIU, 2008).

Another reason is the saving-investment gap displayed by Figure 1 that was favorable during the period from 2006, but is heading towards a decline. Moreover, the investment of Arab Gulf nations in Egypt is expected to fall due to the plunge of oil prices. The global financial crisis will also result in a fall in the proceeds of tourism and Suez Canal. Hence, the savings rate that has persisted at around 17% since the seventies is expected to fall. The importance of the study is to investigate methods by which the Egyptian banking sector can mobilize savings through enhancing the quality of its services.



Sources: *Country Report: Egypt* // Economic Intelligence Unit, October 2008.  
*Economic Review (2007/2008)* // Central Bank of Egypt, 2008, № 48 (2). – 94 pp.

Fig. 1. Comparison of growth rates of GDP, investment & savings

In developing nations such as Egypt, the banking sector remains to be the most important artery through which savings are mobilized in order to be rechanneled into investment. The main reason for this is the high vulnerability of the emerging stock markets and the immature insurance sector.

Table 2. Relative importance of saving schemes in March 2008

	Millions of LE	%
Customer deposits in domestic currency	426,951	49.68%
Customer deposits in foreign currencies	171,467	19.95%
Certificates of deposits	77,367	9.0%
Stocks	99,029	11.52%
Bonds	20,573	2.39%
Post office deposits	59,952	6.98%
Insurance policies	4,036	0.48%
Total	859,375	100%

Source: *Economic Review (2007/2008)* // Central Bank of Egypt, 2008, № 48 (2).

Table (2) displays the relative importance of saving mobilization through the banking sector that

amounts to 78.63% of total savings. Moreover, the decline of security trading implies that the roles of banks in mobilizing savings will be even more important during the current global crisis.

Actually, savings mobilized by the Egyptian Stock Exchange do not exceed 13.91% of the total. Table 3 reveals that the 52.9% decline in the index from January 2008 till April 2009 has resulted in a wave of overselling and a huge decline in the volume of trading. In order to regain trader confidence, the CASE administration introduced the EGX 70 Index in March 2009 to replace the previous CASE 30 Index. The new index comprises the 70 most actively traded companies, regardless of levels of capitalization, hence providing a wider coverage of the market. From January 2008 till April 2009, EGX 70 declined by 64.29%, leading to the defection of domestic savings from the stock market and a hemorrhage of foreign savings outside Egypt. Yet, the unpredictability of the CASE Index was also behind the surge in business bank loans in comparison to mobilizing funds through the issuance of securities as shown by Figure 2.

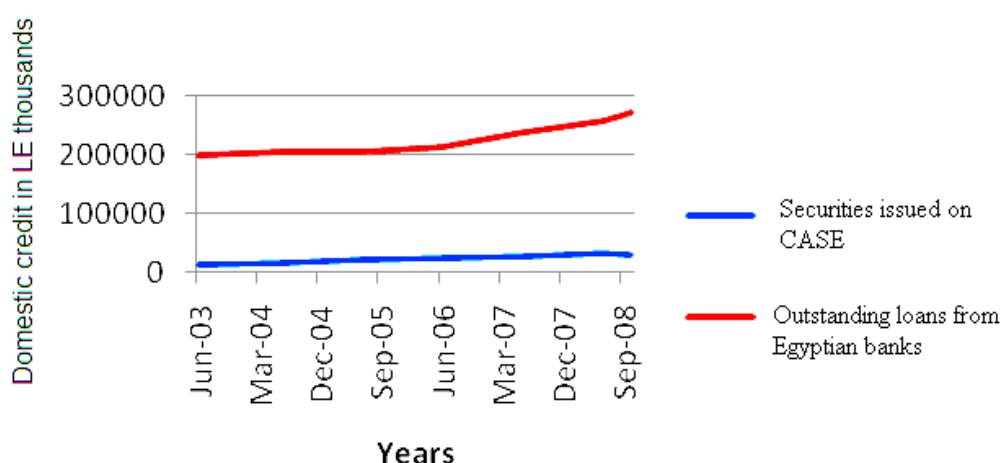
Table 3. Changes in CASE 30 Index (June 2003–November 2008)

	CASE 30 Index	% change in Index	Trading in LE millions
2004	1440	+ 85.59%	42,374.3
2005	4824	+ 235%	160,634.7
2006	4772.8	-1.06%	286,739.7
2007	7803	+ 63.49%	363,047
June 2008	9827.3	+ 25.94%	493,930.1
November 2008	3878	- 153.41%	-----

Source: The Egyptian Stock Exchange. [http://www.egyptse.com/index.asp?CurPage=main\\_market\\_indicators.asp](http://www.egyptse.com/index.asp?CurPage=main_market_indicators.asp)

In spite of the rise in nominal amounts of loans extended by Egyptian banks, the inflow of foreign

banks had a negative effect on widening the S-I gap since they are blamed for the decline in the customer loan to deposit ratio from 57.9% in 2005 to 53% in 2009. Hence, despite the fact that foreign banks possess expertise and more efficient management compared to local banks, two main weaknesses remain. First, the percentage of customer deposits that foreign banks placed with their foreign correspondents skyrocketed from 7.3% in 2005 to 19.55% in 2008 increasing the exposure of the Egyptian banking sector to foreign risks. Second, the reason why scores of foreign banks report higher net profitability compared to domestic banks is due to maintaining wider net interest margins and not necessarily due to higher efficiency (Claessens et al., 2000).



Source: Figure prepared from various issues of CBE Annual Reports.

Fig. 2. Outstanding business loans &amp; securities (2003-2008)

The loss of customer deposits is detrimental to savings and investment especially that banking institutions are the most dominant in mobilizing savings. Moreover, given the underdeveloped insurance sector and a volatile stock market, it becomes imperative to examine the efficacy of Egyptian banks in mobilizing savings. Hence, a comparative study on bank competitiveness in Egypt is indispensable for both researchers and policy makers alike. Furthermore, the study is apt to fill an evident research gap and set examples for emerging countries sharing similar characteristics with the Egyptian economy.

## 5. Objectives of the study

From all the above it is apparent that bank management should constantly seek new ways to add value to banking services. The challenges confronting Egyptian banks can be summarized into internal and external ones. Internal challenges pertain to the difficulty of mobilizing savings and efficiently financing investment. Alternatively, external challenges are posed by foreign competitors

that have attracted customers, but placed domestic savings with foreign subsidiaries. To appropriately address these challenges a field study was conducted to lay the groundwork for enhancing the maturity of banking services. The objectives of the field research are to identify the following:

- ♦ the steps taken by different categories of Egyptian banks towards the adoption and improvement of service quality;
- ♦ the association between the implementation of quality improvement and customer enticement;
- ♦ the correlation between bank efficiency and saving/investment levels;
- ♦ the method and logistics of setting quality standards for Egyptian banks.

## 6. Methodology of the study, sample and hypotheses

**6.1. Methodology.** In a competitive environment where customers defect to banks offering quality services, it is essential to adopt efficiency benchmarks for linking service quality with profits. The traditional use of the CAMELS Analysis does

not serve as a good measure of service quality. The first step in designing efficiency measures is to acquire a priori knowledge of the inputs and outputs of a bank. The most widely studied measure treats the resources of the bank, such as managers, employees and capital as inputs, while output is measurable services such as the number of accounts and profitability. In defining bank performance, there are two popular approaches used to measure the correlation between quality service and efficiency. The first is the *Service-Profit Chain Framework* (SPC) and was introduced by Heskett (1997). The second is the *Service Management Model*. The SPC Model thoroughly explains that profits and revenues are derived from loyal customers and that in turn, service value is created by loyal and productive employees (Heskett et al., 1997). In other words, the SPC Paradigm attributes the financial performance of banks to customer and employee satisfaction. The model adopted by this research will have both inputs and outputs refined to provide an understanding of the relation between the internal service quality, managerial efficiency, employee loyalty on one hand and profitability and customer base on the other hand. Customer base was added as an output to study the effect of efficiency on mobilizing savings and channeling them into investments.

Hence, throughout the paper the term “efficiency” will refer to a set of criteria comparing costs of inputs and output. The common measures of bank profitability are the return on assets (ROA) and return on equity (ROE) (Claessens et al., 2000) and the X-efficiency will be used to measure the efficacy of banking services while employing a stochastic frontier approach *SFA* (Miller and Parkhe, 2002). The X-efficiency accounts for bank expenses, non-performing loans and the product mix. Finally, the customer base is measured by the volume of deposits, which are used as a proxy of savings, and business loans as a proxy to investment funded by the banking sector. It must be noted that the main assumption is that the Egyptian banking sector is in equilibrium. All variables are in logs, with the coefficients representing their respective elasticities.

$K_i$  is the input price compared to the output revenue, while the subscript  $i$  denotes bank  $i$ .

$$K_i = \alpha_1 + \beta_1 E_i + \beta_2 M_i + \beta_3 C_i + \beta_4 I_i + S_i + T_i + N_i + \varepsilon_{1i}.$$

$E_i$  is the ratio of employee expenses to total assets where the price of labor is salaries, bonuses, redundancy, recruitment and training costs (proxy for input price of motivating employees).  $M_i$  is the ratio of manager expenses to total assets (proxy for

input price of enticing managers).  $C_i$  is the ratio of off balance sheet expenses to assets (proxy for input price of diversifying banking services).  $I_i$  is the ratio of interest expenses to interest costs (proxy for input price of deposits to loans).  $S_i$  is the distance from the efficient frontier of customer deposits to total assets.  $T_i$  is the distance from the efficient frontier of customer loans to customer deposits.  $N_i$  is the cost of non-performing loans.  $\varepsilon_{it}$  is a set of exogenous variables that may affect the output function, specifically, the size of total assets (to control for size of banks), the ratio of non-performing loans and the ratio of customer loans to business deposits.

The H-statistic test is defined as the sum of the elasticities of equation (2) with respect to input prices, that is, the linear combination of the coefficients of  $\beta_1 + \beta_2 + \beta_3 + \beta_4$ .

**6.2. Sample and categorization.** Due to the small number of Egyptian banks, the sample covers the entire sector and was divided into the following four mutually exclusive categories:

- 1) state-owned banks comprising of 3 commercial and 3 specialized banks;
- 2) two Islamic banks, but Islamic outlets of non-Islamic commercial banks were totally excluded from the survey since they are of negligible value;
- 3) 25 private domestic commercial banks<sup>1</sup>;
- 4) seven foreign banks that are relatively newcomers during the last 10 years.

Results for each category are compared to capture the impact of the bank type on the levels of bank savings and investment. Such an extensive analysis of all banks is apt to draw the policy makers' attention to the impact of the type of banks on bank performance. It will also assist top managers to perform power benchmarking by examining multiple variables in one process instead of the traditional benchmarking that simply looks at one variable at a time.

**6.3. Hypotheses.** In order to meet the above objectives, questionnaires were piloted after an in-depth consultation of key banking service quality specialists. The following hypotheses were made:

*H1: There is a variation in the level of maturity of the implementation of quality services among different categories of Egyptian banks.*

*H2: There is a high correlation between well-trained employees and bank efficiency.*

<sup>1</sup> Islamic International Bank for Investment and Development merged with two under-capitalized banks, United Bank of Egypt and Nile Bank to form the United Bank that was established in June 2006 with a paid-in capital of L.E. 1 billion injected by CBE.



*H3: There is a high correlation between resourceful managers and efficiency leading to more savings and investment.*

*H4: There is a high correlation between customer satisfaction and efficiency leading to more savings and investment.*

## 7. Design of the questionnaires

The period of the study extended during 6 months from April till October of 2008 and the research team comprised four research assistants. The study was conducted over two phases. During the first phase, the focus was on customer-perceived quality and hence questionnaires were extended to customers as a prerequisite to prepare the manager interviews and the employee questionnaires. Furthermore, mystery shopping was occasionally employed as an additional tool whenever the research team detected lack of willingness of customers to participate. This is inherently due to a cultural barrier of customer skepticism of such surveys. In the second phase managers were interviewed about their perceptions on service quality, the methods employed to survive competition and customer enticement. Manager interviews were conducted with branch, middle or higher managers in each bank. The samples were drawn from 102 branches around Egypt in order to rule out for bias. The number of observations from all three types of interviewees amounted to 954.

**7.1. Customer questionnaires.** The customer questionnaire was designed to measure customer satisfaction with banking services. It comprised 12 Likert-type items based on five-point scales ranging from excellent (5 points) to low (1 point) and included questions about the levels of satisfaction pertaining to five criteria:

- ♦ **Diversification:** The ability of banks to provide a range of diversified services.
- ♦ **Reliability:** Trust in the safety of deposits, the ability of banks to accurately deliver services and prudently extend loans.
- ♦ **Responsiveness:** The willingness to help customers and provide prompt services.
- ♦ **Assurance:** The knowledge, courtesy and trustworthiness of employees.
- ♦ **Empathy:** The caring, personalized attention provided to customers.

**7.2. Employee questionnaires.** Many of the customer-perceived banking service problems or the so-called “antecedents of service-provider gaps” (Zeithaml et al., 1990) are the result of low motivated employees and inferior internal quality (Garvin, 1988). The items for the employee measures were mainly taken from the Loveman model (Loveman, 1998). In

cases of reluctance of employees to respond, the research team posed indirect questions. The items for the employees’ perception of internal quality measures were prepared according to a five-point ratings scale ranging from ‘excellent’, to ‘very poor’, according to the following items:

1. Internal service quality was measured by means of six items.
2. Employee satisfaction was measured by 2 items asking the respondents how they rate their job and their employers.
3. Shortcomings were measured by 2 items.

**7.3. Manager interviews.** Managers were interviewed to get more insight about the barriers to introducing quality services. Besides the individual interviews and questionnaires, secondary data on the managerial expertise and the financial performance of some of the participating branches were gathered and quarterly reports for each bank were used.

## 8. Difficulties and limitations of the study

The basic limitation encountered in this research is the inability to conduct inter-branch comparisons. The aggregate financial position of each bank was used, but since this aggregation of data may conceal and offset positive and negative signals from different individual branches, results must be used with caution. To reduce bias and to control for error, a pilot survey was used to fortify the sampling design chosen and to sort out non-sampling issues. However, for a more accurate analysis, future research must compare branch performance to detect regional differences. Yet, it is safe to mention that the efficiency in rural areas is lower than in urban branches. Another major limitation is the inability to measure the effect of monetary policy on bank efficiency. CBE conducted contractive monetary policy at the beginning of the study to control inflation. Another external factor is the performance of the CASE 30 Index. Both factors increase saving mobilization.

## 9. Research results and findings

**9.1. Results of field questionnaires and interviews.** The preliminary results of the employee and customer surveys and the manager questionnaires are summarized in Figure 3. While the level of concentration is highest in public banks, overall managerial quality and employee satisfaction was lowest in state-owned banks. The best performers with regards to customer satisfaction were domestic private banks. Foreign banks showed slightly lower employee and customer satisfaction. When questioned about their sources of dissatisfaction, employees complained about lack of job security, albeit receiving high salaries.

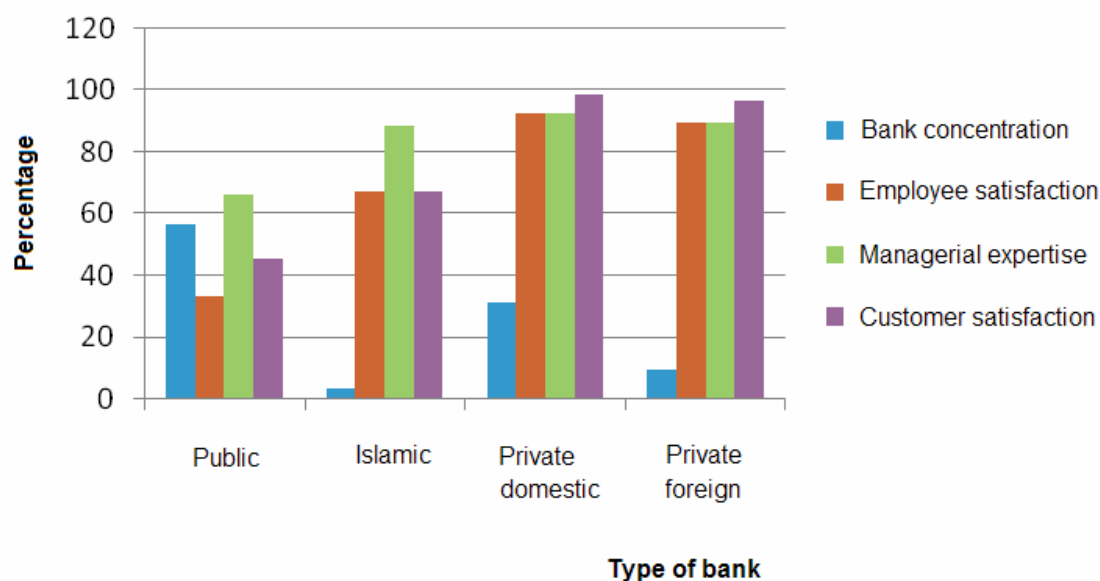


Fig. 3. Comparison of field research

- ♦ The first part of the study clearly reveals customer complaints of lack-lustre service of state-owned and Islamic banks. However, Islamic banks claim that their own measure of customer satisfaction has risen during 2008 from 69% to 82% as they have started tying employee pay to service quality (Standard Chartered Bank, 2008).
- ♦ As for staff morale, the highest level is recorded in private domestic banks and the lowest was in state-owned banks. It becomes apparent that the lack of job security emanates from the general trends of belt-tightening, job slimming of 5% for all but publicly-owned banks and the fear of the drop in the number of branches. Most managers claim that the reason for cutting jobs is the introduction of e-banking and ATMs to keep up with the latest banking technology. Thus, the improvement in technology appears to be a double-edged weapon.
- ♦ Finally, the result for customers is alarming since the overall complaint was the drastic decline in business loans. In fact, secondary sources also confirm this result. Customers of state-owned banks complain about lack-lustre services, but safety of their deposits superseded their distress about mediocre quality. Loans are also preferred from state-owned banks that generally charge lower interest rates. Hence, the results of customer surveys indicate that the level of satisfaction with banking services does not necessarily affect their decisions to place their deposits with banks. This may be due to the lack of any public or private customer deposit insurance scheme and once introduced, customer deposit insurance is apt to redirect a

substantial portion of deposits from public to private banks.

**9.2. Descriptive statistics.** The input-output function ( $K_i$ ) is lowest in joint-venture bank (0.34) and highest in state-owned banks (0.78). Islamic and foreign-owned banks scored 0.46 and 0.48, respectively. The poor ratio for public banks has tempted many policy makers to privatize Bank of Alexandria and to place Banque du Caire for sale. The following general conclusions can also be made:

- ♦ The unit price of labor ( $R_i$ ) is statistically significant in all categories with comparable positive elasticities. This suggests that the costs incurred to improve efficiency are relatively high for all categories of Egyptian banks.
- ♦ The unit cost of off balance sheet expenses ( $C_i$ ) is significant in all cases, but is highest in private banks. In their interviews, bank managers complained about the high advertising costs, installment of ATMs and the substantial losses incurred by their dealing rooms.
- ♦  $E_i$  and  $M_i$  were quite high basically due to lofty employee and managerial expenses that reach their peak in foreign banks.
- ♦ Non-performing loans ( $N_i$ ) were quite high in state-owned banks and negligible in both categories of private banks, but it must be mentioned that tremendous progress has been made in cleaning up the balance sheets of banks. Moreover, this figure may be misleading, since the CBE has bailed out three of the insolvent banks as mentioned earlier.
- ♦ The price of deposits to loans ( $I_i$ ) was worst in public banks due to the high interest rates paid to depositors and the low interest charged to



borrowers, many of whom are public sector firms. This is a continuation of the paternalistic role of publicly owned entities. There was one exception to the rule, though, which was the state-owned Housing and Development Bank that is in line with private banks.

- ♦ Lastly, the examination of exogenous variables reaps two surprising findings. First, there is a low relationship between the size of the bank and its revenue. This demonstrates that economies of scale are not reaped by larger banks and, in fact the profitability structure of the banking sector is skewed toward the middle-sized banks. But a word of caution has to be made here; this may be due to the fact that most of the large banks are state-owned. Hence, one should not rule out the need for more bank consolidation and for the increase in bank capitalization. Secondly, contractive monetary policy has had a negative effect on revenues. This is because the lower economic activity and the inflation have led to lower investment levels and hence lower loans.

### 9.3. Testing the hypotheses

	H1	H2	H3	H4
Public banks	0.32	0.41	0.13	0.56
Islamic banks	0.68	0.54	0.98	0.52
Private domestic banks	0.77	0.67	0.68	0.25
Foreign domestic banks	0.25	0.66	0.56	0.13

- ♦ Testing H1: There is a disparity in the overall efficiency level for the 4 categories of banks.

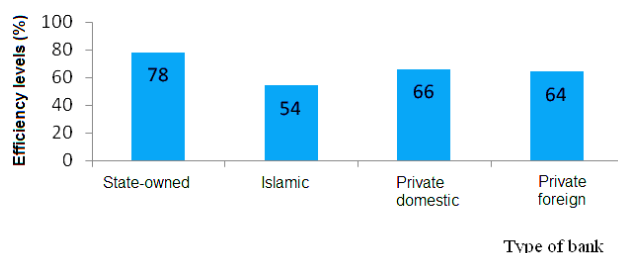


Fig. 4. Efficiency by bank type

- ♦ Figure 4 suggests that the highest level of efficiency is for the public banks followed by privately-owned domestic banks. The surprising finding is that the two Islamic banks show the lowest levels of efficiency in mobilizing savings and reallocating them into investment. This may be explained by the Egyptian culture of savers who prefer secular banks.
- ♦ Testing H2: The measures of internal employee service quality show some positive correlation. Pearson's  $r$  varies from 0.41 to 0.67. The low results for public banks are attributed to job insecurity.
- ♦ Testing H3: There is a surprisingly high positive correlation between managerial expertise and efficiency for Islamic banks. This may be

explained by the recent employment of highly qualified managers during the last 12 months especially after the global financial crisis.

- ♦ Testing H4: There is generally a low correlation between customer satisfaction and efficiency. The correlation between bank inputs and customer deposits is highest in public banks and lowest for foreign domestic banks. On the other hand, the highest correlation between bank inputs and private business loans (as a measure of investment) is for private domestic banks and lowest in foreign domestic loans. As mentioned earlier, the interpretation is that the current global crisis has tempted many depositors to withdraw their funds from private banks and place them with public banks, especially given the lack of a deposit insurance scheme.

### Conclusion: levers to improve the performance of Egyptian banks

This research has studied the shortcomings of the quality of services in the Egyptian banking sector. In order to enhance banking services a collective action plan encompassing the efforts of banking units, the CBE, the Egyptian Bankers Institute and the Union of Arab Banks needs to be introduced through five main pillars.

**Lever 1: Specialized credit-rating firms.** Most bank managers complained that the costs of scrutinizing borrowers are substantial, which forces them to exclusively lend their favored customers, hence diminishing opportunities for new entrants to the market. Other managers admitted that they preferred to give out consumer loans, mostly to purchase imported cars. The CBE needs to establish credit-rating firms under its strict supervision since the fear of delinquency is a barrier to investment. This will substantially reduce transaction costs and moral hazard problems that led to bad debts in the past.

**Lever 2: Internal and external quality standards.** None of the 40 Egyptian banks employed quality standards for their banking services. There were 3 foreign banks, though, that furnished the research team with a broad procedure booklet that was kept in the closet of the branch manager, but never made accessible to employees. Hence, all banks need to introduce their own quality standards for various departments. For example, the documents needed for each transaction, the time required for the completion of procedures and the flow chart of all processes need to be outlined. The CBE has to ensure that all employees receive periodic training especially that CBE has established its training academy.

Also, the Egyptian Bankers Institute and the Union of Arab Banks need to set measurable quality standards for the banking sector. In this respect, prestigious quality awards should be introduced to improve the market image of banks. This is apt to increase public trust in the Egyptian banking sector especially that the losses due to the exposure to foreign trading risks amounted to 7.66% and to stock market risk 10.67% (CBE, 2008).

**Lever 3: Mergers and acquisitions.** In spite of various barriers of low employee satisfaction and managerial skills, state-owned banks show higher overall efficiency levels with regards to a wider customer base and investment levels. It may be true that the new CBE legislation requires banks to increase the minimum capital requirement to meet the Basel Accord II benchmarks, but the best practice may be to get into joint ventures with private banks instead of the full privatization program.

**Lever 4: Effective monetary policy.** A common complaint in the manager interviews was the excessive contractive monetary policy conducted by CBE. This acted as a major impediment to investment where the customer loan to customer deposit ratio does not exceed 54%. Hence, it is imperative to follow the following amendments:

- ◆ Reduce the LRR from its current level of 14% to 10% as was intended since 2004.
- ◆ Reversal of the contractive monetary policy, but the CBE has started a gradual reversal process especially that inflation rates declined in 2009.

**Lever 5: Deposit insurance schemes.** Finally, the introduction of deposit insurance schemes is apt to increase efficiency of state-owned banks since customers' decision to deposit funds with them will not solely rest on safety concerns

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