
Critical success factors for various strategies in the banking industry

Tser-yieth Chen

Research Fellow, Chung-Hua Institution for Economic Research, Taipei, Taiwan

Keywords

Banking, Business strategy, Company performance, Competitive advantage, Strategic planning, Success

Abstract

Applies the critical success factor (CSF) approach to identify the appropriate CSFs underlying three types of strategy in the banking industry. The empirical results of this paper show that the various strategies adopted have a significant effect on factors determining success and that the mean importance of CSFs varies among the various strategies. The result of a factor analysis suggests four composite CSFs: bank operation management ability, developing bank trademarks ability, bank marketing ability, and financial market management ability. Further discussions and management implications are also presented.

1. Introduction

The purpose of this paper is to examine the critical success factors (CSFs) which are relevant in the banking industry. In an industry as complicated as that of financial intermediation, no simple formula can predict winners and losers from the surrounding environment. Instead of guessing winners and losers, we try to identify the principal factors that determine a bank's success. Today's banking industry is characterized by intensifying global competition and rapid advancements in the liberalization of the banking market. This is especially true of Taiwan's banking market, which has become increasingly international and deregulated in the 1990s. In 1991, the government promulgated the Promote Commercial Bank Establishment Decree in order to open up the banking market further, and it invited foreign investors to participate in Taiwan's banking industry; these moves have made the banking market in Taiwan more competitive. Under these circumstances, a bank has to put in much more than an "average" performance by not trying to be all things to all people. Management must emphasize the strengths that will give the bank a competitive advantage, and these may be defined as the capabilities or circumstances which give it an edge over its rivals. Longer term, the success of a bank requires that its competitive advantage be sustainable. CSFs and the firm's competitive ability are the two main components of the competitive advantage of a firm (Bamberger, 1989). Appropriately identifying banks' CSFs can provide for banks a means of assessing and building up their competitive advantage.

In this paper, CSFs are identified from the various business strategies adopted. Because the quest for competitive advantage from CSFs is the essence of the business level, as opposed to that of the corporate level, the business strategy is then the focus of attention. Business strategy is an effective

management tool and it obviously affects resource allocation and competitive advantage in an enterprise (Hofer and Schendel, 1978). An appropriate strategy can lead a bank's resources in the desired direction and can effectively enhance a bank's competitive edge while intense competition is at play in the marketplace. The sustainable execution of business strategies can affect the composition and formation of CSFs. It is for these reasons that we address the role of the marketing strategy, which has been adopted, when we report on the CSFs.

The CSF approach represents an accepted top-down methodology for corporate strategic planning, and while it identifies few success factors, it can highlight the key information requirements of top management (Byers and Blume, 1994; Rochart, 1979). In addition, if the critical success factors are identified and controllable, management can take certain steps to improve its potential for success. Prior research concerning CSFs has been undertaken in the banking industry. However, the specific strategy underlying bank success has not been detailed. This paper fills that void by combining a study of both CSFs and different types of adopted strategies. Note that we employ the "industry-level" analysis approach, rather than the approach adopted in company-level studies, and stress the factors in the basic structure of the banking industry that significantly impact a bank's operational performance. In sections two and three, we first review the related literature, and then discuss the strategy setting and the CSFs. Section four discusses the survey framework of the study. The empirical results are presented in section five, and the sixth section comprises final discussions and conclusions.

2. The critical success factors approach

Rochart, in 1979, was first to define the concept of critical success factors. He defined

them as “the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization”. He indicated that CSF is a useful approach for identifying management’s information requirements because it can focus attention on areas where “things must go right”. Boynton and Zmud (1984) also defined CSF as the “few things that must go well to ensure success for a manager or an organization”. They recognized the CSF approach as an appropriate planning instrument. Leidecker and Bruno (1984) identified the few critical success factors, often as few as six in a successful firm, while Guimaraes (1984) attempted to rank CSFs based on their relative importance. Martin (1990) then pointed out that CSFs combined with computers could effectively translate business strategy planning. Crag and Grant (1993) highlighted the contexts of competitive resources and illustrated the relationship between competitive resources and critical success factors. Kay *et al.* (1995) identified several CSFs applicable to insurance agency sales in high performance and low performance groups.

With regard to the banking industry, Johnson and Johnson (1985) proposed that the width and depth of the product and service line, low operating costs, and a good bank reputation can be considered as the three critical success factors in a competitive market in the banking industry. Canals (1993) recognized that the concepts of value chain and bank configuration could be employed to develop a bank’s competitive advantage. He identified four sources of a bank’s competitive advantage, namely:

- 1 manpower;
- 2 financial management;
- 3 asset base; and
- 4 intangible assets.

Wilde and Singer (1993) singled out three critical success factors for banks and insurers, that is, lower cost, product differentiation, and financial strength. In our study, we highlight the role of business strategy when we identify CSFs in the banking industry. Our research results contribute to the current literature and provide some useful insights concerning the CSFs associated with bank management and business strategy.

3. The strategy setting and CSFs

Much empirical research has attempted to verify the relationship between competitive advantages and business strategies. First, Aaker (1979) discussed corporate, business

and functional area strategies and found that there were obvious differences between the organizational structure, management function and competitive resource/advantage. Next, Leidecker and Bruno (1984) identified competitive resources in four semi-conductor companies, which operated with different business strategies. They found that when the companies utilized different business strategies, it clearly affected their resource utilization and the business goals emphasized. Dvir and Shenhar (1990) further stated that firms based the selection of their business strategy primarily on technological levels and financial situation. They proposed that one could identify a firm’s competitive advantages by its technological level and financial situation. Moreover, a set of business strategies is applicable to competitive firms’ quest for a niche; this is described by Porter (1985). Porter (1985) suggested that business strategies could be categorized as:

- cost leadership;
- differentiation;
- specialization; and
- stuck in the middle.

Miles and Snow (1985) also identified parallel business strategies in firms which will condition organizational development. In their study, they categorized four types of business strategy, that is:

- 1 prospector;
- 2 analyzer;
- 3 defender; and
- 4 reactor.

A prospector usually attempts to enter a new market and adjusts his/her products and services in a timely manner. An analyzer is identified as a cost saver and/or efficiency promoter, especially in risk and innovative businesses and is always the second company to enter a new market. A defender is an expert on managing an experienced task in a stable market, with stability and security as key principles. Finally, a reactor is a contingency player and typically lacks a consistent strategy. This study uses Miles and Snow’s (1985) four types of strategy as one of the “best known” and most widely accepted models for bank growth and market analysis. In a study of various types of business strategy, Shortell and Zajac (1990), McDaniel and Kolari (1990), and Segev (1991) illustrate business operations and refer to Miles and Snow’s (1985) descriptions of the four types of business strategy for organizational development. Table I presents the details of these four types of strategies.

As stated above, we find that if we conduct a CSF study in the banking industry and obtain some applicable CSFs, consideration

Table I

The four types of business strategy for banks

1. Prospector	A prospector always maintains a wide product line and market field and monitors his/her business environment as related to new market opportunities based on a macro point of view. A prospector desires to become a first market opener, even when this market is uncertain and high-risk. Prospectors quickly respond to signals in the economic environment, usually resulting in renewed competition. Certainly, it cannot be guaranteed that the prospector will hold his competitive strengths in all the new markets that he/she enters
2. Analyzer	An analyzer usually tries to hold stable and limited product and service items. Before he/she enters a new market, he/she makes a considered evaluation in advance. An analyzer can become an initiator of a new product or new service, but will try to lower costs or be more efficient. Analyzers will be the second (or third) company to enter a field. An analyzer usually obtains market share by imitating a new product and through marketing; production and research departments play an important role in analyzers' business activities given this type of strategy
3. Defender	A defender emphasizes his resources in experienced tasks in a stable market. A defender tries to hold on to his/her niche in a relatively stable product line. He/she usually provides higher quality service at a lower price in order to maintain market share and manages his/her business in the current, limited product line and service items. A defender tends to ignore reforms in the industry and makes efforts on current development in a limited business field, rather than becoming a pioneer
4. Reactor	A reactor does not have a consistent business direction to follow. He/she does not try to maintain current competition status and is never willing to undertake business risk like other competitors. A reactor usually lacks a consistent business strategy and that may be the reason why reactors seldom perform well. In general, a reactor does not have a clear strategy and always makes decisions under pressure from the environment

Sources: Modified from McDaniel and Kolari (1987), Segev (1987) and Shortell and Zajac (1990)

of the effects stemming from the business strategies with which banks operate may be needed. In considering the business strategy, we need to consider whether different business strategies result in different CSFs. We then put forward two propositions, which need to be tested:

- 1 Business strategy is an important factor in establishing CSFs.
- 2 CSFs differ within banks when banks adopt different business strategies.

Thus, the following hypothesis tests can be included:

- an overall test (A1) based on the null hypothesis that there are no significant differences in the mean values of the composite CSFs for strategy groups;
- an individual test (B1) that there are no differences in the mean values of the specific CSF for the strategy groups;
- a pair-wise test (B2) that there are no significant differences through all the possible pairs of factors of CSFs and across three kinds of strategy.

4. The survey framework

The target population for this cross-sectional survey consisted of 375 local bank managers in Taipei City. Of these, nine-tenths (336) were domestic investor-owned banks and only one-tenth (39) were foreign investor-owned banks. We used a questionnaire to collect the necessary data from bank branch managers. The questionnaire was pretested twice and incorporated changes as recommended by the respondents. Respondents were asked to indicate the importance of each of 25 items which could contribute to success on a five-point Likert scale ranging from "very low" to "very high" (Rai *et al.*, 1996). The Likert measurement examined the respondent's perceptions of each item's function and importance. The questionnaire, and an official cover letter explaining the purpose of the study, were mailed in 1997. Of the 375 surveyed, the reply rate was 38.1 per cent (143 respondents), which is typical of surveys of banks. Among the responses, 138

were usable; this number constitutes the effective sample size for this study.

The literature provides an applicable list of applicable success items and CSFs in the banking industry. Based on these studies, we collectively identify a total of 22 success items relevant to commercial banks. Three items obtained from a pretest of the questionnaire used in this study are also attached (see Table II). The 25 success items are listed as in the questionnaire and the sources of the success items are presented in parentheses. In addition, a comprehensive description of the four types of strategy was given in the questionnaire and a self-reporting process was used to identify bank strategy.

Of the 138 respondents who indicated their business strategy, 26 (18.8 per cent) were prospectors, 74 (53.6 per cent) were analyzers, 34 (24.6 per cent) were defenders, and 4 (2.9 per cent) were reactors. The mean business years was 9.3 years for the 138 banks; the 26 prospector banks had 7.4 business years, which was smaller than that of the analyzers (9.8 business years) and that of the defenders (12.9 business years). The prospectors are categorized as the youngest banks, while the defender banks are categorized the oldest, an arrangement which seems to fit with Miles

and Snow's analysis. Note that only four of the respondents were reactors; therefore, we omit the reactor strategy in our empirical analysis and view this as a limitation of the study.

5. Empirical results

The results are presented as follows. First, the mean rating on variables of interest was computed. Second, a factor analysis of the 25 success items was conducted to identify composite CSFs. Third, to test whether the importance of the composite CSFs is different with specific attributes, we undertake a multivariate analysis of variance (MANOVA) in the dimension of the various business strategies adopted. The result of this analysis is rather important for the commercial bank manager in guiding sales decisions and for the analyst in cross-checking results obtained in related studies.

The importance rating of the 25 success items is listed in Table III. The individual mean value of the Likert rating scale is the popular usage indicator for measuring an item's importance, without regard to the other items. The higher the value, the more

Table II

Success items in the banking industry

1. Bank reputation and good image (Bamberger, 1989; Canals, 1993; Johnson and Johnson, 1982)
2. Bank location: business opportunity and transportation (Canals, 1993)
3. Number of bank branches (Canals, 1993; Wilde and Singer, 1993)
4. Quantity and contents of service items (Bamberger, 1989; Johnson and Johnson, 1982)
5. Interest rate and fees (Bamberger, 1989)
6. Bank safety^a
7. Staff politeness and kindness (Aaker, 1989; Crag and Grant, 1993)
8. Speed of business handling^a
9. Staff professional knowledge (Bamberger, 1989; Canals, 1993)
10. Long-term relationships with customers (Crag and Grant, 1993)
11. Management ability of the bank manager (Bamberger, 1989; Canals, 1993)
12. Ability of asset and liability management (Johnson and Johnson, 1982)
13. Ability of internal auditing and control (Canals, 1993; Wilde and Singer, 1993)
14. Ability of computerization (Canals, 1993)
15. Soundness of bank system (Canals, 1993; Rochart, 1982)
16. Deposits acquisition (Canals, 1993; Porter, 1985)
17. Active in new business district (Wilde and Singer, 1993)
18. Develop new business to meet unmet demand (Aaker, 1989; Wilde and Singer, 1993)
19. Separate the market and do individual marketing (Wilde and Singer, 1993)
20. Proceed with proper sales promotion activities (Porter, 1985; Segev, 1987)
21. Provide sufficient staff incentives^a
22. Realize the activities of other banks (Bamberger, 1989; Porter, 1985)
23. Accurate prediction of future bank business (Porter, 1985; Rochart, 1982)
24. Prosperous stock and securities market (Canals, 1993; Porter, 1985)
25. Government deregulation policy (Aaker, 1989; Bamberger, 1989)

Notes: The sources of success items are identified in parentheses; ^a means that the item was identified during the pretest of the questionnaire

important the item. In the second column of Table III, we find that the majority of items are rated above the 3.0 scale midpoint. Among them, bank reputation and good image, staff politeness and kindness, and the management ability of the bank manager constitute the top three of the 25 success items with a mean value ranging from 4.64 to 4.80. Conversely, undertaking proper sales promotion activities, providing sufficient staff incentives, and separating the market from individual marketing constitute the three items located at the bottom of the list with a mean value ranging from 2.86 to 3.15.

Next, we conduct a three-stage factor analysis with an orthogonal (varimax) rotation to obtain a stable factor structure (Rai *et al.*, 1996; Stevens, 1986). Under this three round factor analysis, we omit the success

items according to the following two criteria:

- 1 no loading greater than 0.35; or
- 2 loading greater than 0.35 on two or more factors (Kim and Mueller, 1978).

Table III shows the results of this analysis. A first factor analysis was conducted and produced six factors. According to the two criteria, six items were dropped. A second factor analysis on the remaining 19 items resulted in five factors and the dropping of three items. Finally, we derived a four-factor structure and kept a total of 16 items after three iterations. The minimum eigenvalue from a varimax rotation for which a factor was to be retained was set at 1.0 in order to satisfy the minimum eigenvalue criterion (Nunnally, 1978). Among these factors, factor one contains six items that deal with issues

Table III

Results of mean importance rating and factor analysis

Success items ^a	Mean rating	Factor loading (final factor structure: 3rd factor analysis)				Item deletion in the <i>n</i> th factor analysis ^b
		F1	F2	F3	F4	
Bank reputation and good image (1)	4.80			0.431		
Staff politeness and kindness (7)	4.65	0.508				
Management ability of the bank manager (11)	4.64	0.522				
Long-term relationships with customers (10)	4.54		0.672			
Speed of business handling (8)	4.51	0.574				
Ability of computerization (14)	4.50	0.470				
Ability of asset and liability management (12)	4.48	0.600				
Bank location: business opportunity and transport (2)	4.43			0.708		
Staff professional knowledge (9)	4.33				1st ^b	
Soundness of bank system (15)	4.28				2nd ^c	
Ability of internal auditing and control (13)	4.25	0.698				
Deposits acquisition (16)	4.22		0.386			
Develop new business to meet unmet demand (18)	4.09				1st ^b	
Quantity and contents of service items (4)	4.01			0.429		
Bank safety (6)	4.00				2nd ^b	
Accurate prediction of future bank business (23)	3.99				1st ^b	
Active in new business district (17)	3.81				1st ^b	
Government deregulation policy (25)	3.78			0.365		
Realize the activities of other banks (22)	3.74		0.542			
Interest rate and fees (5)	3.68				2nd ^c	
Number of bank branches (3)	3.60			0.410		
Prosperous stock and securities market (24)	3.20			0.498		
Separate the market and do individual marketing (19)	3.15				1st ^c	
Provide sufficient staff incentives (21)	3.13		0.624			
Proceed with proper sales promotion activities (20)	2.86				1st ^b	
Eigenvalue		11.77	2.50	2.18	1.18	
Percentage of variance		59.17	11.62	9.63	6.45	
Cumulative percentage of variance		59.17	70.80	80.43	86.88	
Internal consistency: Cronbach alpha coefficient		0.87	0.71	0.65	0.55	

Notes: ^a The numbers in parentheses are the ID numbers of the success items (refer to Table II); ^b indicates double loading; ^c indicates loading smaller than 0.35

related to internal management, i.e. staff politeness and kindness, the management ability of the bank manager, the speed of handling business, the ability of computerization, the ability of asset and liability management, and the ability of internal auditing and control. Thus, factor one was named as "ability of bank operation management". Factor 2 holds four items that refer to issues related to business and marketing:

- 1 long-term relationships with customers;
- 2 deposit acquisition;
- 3 realizing the activities of other banks; and
- 4 providing sufficient staff incentives.

As a result, factor two can be labelled as "ability of bank marketing". Factor three includes three items that focus on the description of a bank's outlook. They are bank reputation and good image, bank location (including business opportunities and transportation), and the number of bank branches. Therefore, factor three is titled "ability of developing bank trademarks".

Finally, factor four also contains three items that describe issues linked with related financial markets. They include:

- 1 quantity and contents of service items;
- 2 government deregulation policy; and
- 3 the prosperous stock and securities market.

Hence, factor four can be termed "ability of financial market management". Note that we calculated Cronbach alpha coefficients to test the reliability of these CSFs and listed them in the last row of Table III. We find that the reliability coefficients obtained range from 0.55 (factor four) to 0.87 (factor one). Srinivasan (1985) proposed that a coefficient of 0.7 or higher is acceptable, while a coefficient of 0.5 or higher is considered sufficient when dealing with exploratory research combined with invalidated data. Thus, the reliability coefficients in our study are deemed acceptable.

As to the MANOVA process conducted in this study, it includes the overall test, an individual test, and a pair-wise test, as listed above. With regard to the overall test, the calculated statistics are 0.87 (Wilke's criterion), 0.13 (Pillai's trace), and 0.14 (Hotelling-Lawley's trace), which are all significantly different from zero. These empirical results indicate that the importance attached to the composite CSFs varies according to the classification of strategy and that we cannot accept hypothesis A1 (Table IV (a)). Table IV (b) shows the mean values of the four composite factors across three strategies and indicates that the mean values of the CSFs range from 3.31 to 4.54. The table also reports a standardised measure of the importance of

each CSF within a particular strategy group. It shows that the four CSFs possess the same "ranking" of mean value among the three strategies adopted and the aggregated data. However, we find that the CSFs are significantly different among the three strategies though the result of an individual test. The individual *F*-value of the four factors ranges from 2.62 to 5.11; therefore we cannot accept null hypothesis B1; the importance of individual CSFs does vary. Table IV (c) shows the results of the pair-wise tests. The columns represent the mean values for the three strategies and across all strategies. The rows show which of the pair factors are compared. Thus, the entry "3.79" represents how the second row compares the differences between factor one (ability of bank operation management) and factor three (ability of bank marketing). We can further find that the majority of the pairs of the student's *t*-statistics have significant differences in their mean values of factors. Hypothesis B2 also cannot be accepted and that CSFs do vary across the three strategies. The only exception is the factor three and factor four pair in the prospector's strategy, which shows the existence of indifference to CSFs within the two factors.

6. Discussions and conclusions

Our research has derived four CSFs in the banking industry, which can reflect four business goals for the commercial bank manager. They are:

- 1 ability of bank operation management;
- 2 ability of bank marketing;
- 3 ability of developing bank trademarks; and
- 4 ability of financial market management.

Our results also show that the various strategies adopted have a discriminating effect on the CSFs. We find that the first factor, the second factor, and the third factor appear to include success items, which the bank can control, such as computerization, speed of handling business, and staff politeness and kindness, etc. However, the fourth factor includes certain items, which the bank can control, such as the quantity and contents of service items; but others, such as government deregulation and the prosperous stock and securities market, are external environmental factors.

These four composite CSFs can, moreover, be linked back to the competitive strategies of Miles and Snow (1985). We calculate the standardized mean value of each composite factor with the different strategies adopted and we analyze the extent of superiority as

Tser-yieth Chen
Critical success factors for various strategies in the banking industry
 International Journal of Bank Marketing
 17/2 [1999] 83–91

Table IVa

Overall test results for the effect of the strategies adopted on the four factors

Items	Statistics	DF	F-value	Pr > F
Wilke's Lambda	0.873	(8,256)	2.24	0.0248*
Pillai's trace	0.131	(8,258)	2.26	0.0238
Hotelling-Lawley trace	0.140	(8,254)	2.22	0.0259*
Roy's greatest root	0.082	(4,129)	2.66	0.0358*

Note: * Means significant at the 0.05 confidence level

Table IVb

Mean value and the individual test results of the four factors

Composite factors	Strategies				F-value	Pr > f
	Prospectors	Analyzers	Defenders	All		
F1: ability of bank operation management	4.538 (1.12)	4.534 (1.11)	4.417 (1.14)	4.505 (1.12)	2.62	0.0354*
F2: ability of developing bank trademarks	3.442 (0.85)	3.311 (0.81)	3.132 (0.81)	3.291 (0.82)	4.10	0.0188*
F3: ability of bank marketing	4.115 (1.02)	4.378 (1.07)	4.176 (1.08)	4.276 (1.06)	5.08	0.0075*
F4: ability of financial market management	4.064 (1.01)	4.099 (1.00)	3.784 (0.98)	4.012 (0.98)	5.11	0.0073*
Average mean value	4.040	4.081	3.877	4.021		

Note: The figures in parentheses are the standardized mean value of the composite factors, e.g. 1.12 is computed from $4.538 \div 4.040$. * Means significant at the 0.05 confidence level

Table IVc

Pair-wise test results of the differences between the importance of the four factors for the three strategies adopted

Factors compared	Strategy			
	Prospectors	Analyzers	Defenders	All
Factor 1 versus factor 2	9.23*	18.99*	13.83*	25.07*
Factor 2 versus factor 3	3.79*	2.95*	2.48*	5.16*
Factor 1 versus factor 4	5.67*	7.08*	5.87*	10.55*
Factor 2 versus factor 3	-3.97*	-15.01*	-8.40*	-16.13*
Factor 2 versus factor 4	-4.42*	-10.19*	-5.15*	-12.05*
Factor 3 versus factor 4	0.37	4.31*	3.67*	4.99*

Note: These are the results of the student's *t*-test; * Means significant at the 0.05 confidence level

compared with the mean value of the total sample. The result is shown in Table IV (b). The F1 factor, the ability of bank operation management, is found to have the highest relative (standardized) score in the defender strategy. This result corresponds to the benchmarks of a defender who is characterized as a cost leader and who seeks his own productive efficiency in order to reduce supply costs. As to the score of the F2 factor, the ability of developing bank trademarks, the standardized score of the prospector bank is higher than the average score. A prospector normally desires to develop new products and penetrate unknown markets and thus the establishment of the bank trademark would

be a critical dimension in this struggle to develop. Similarly, the analyzer and defender strategy has a relatively high standardized score in F3 (the ability of bank marketing), when compared with prospector strategy. This result seems reasonable because the prospector bank is often less focused on traditional business situations. As to the ability of financial market management (F4), the higher standardized scores feature in prospector and analyzer banks, rather than in defender banks. The content of F4 includes some external opportunities or threats, which the prospector and the analyzer would pay more attention to than the defender. Although it is uncontrollable in general, the

outward looking bank, such as the prospector and the analyzer, usually has more chance of seizing profitable opportunities and/or mitigating any possible damage that may result from the circumstances than the defender.

Four critical success factors are derived in this study involving various managing, marketing, and entrepreneurial characteristics. These CSFs explain commercial bank success clearly and the practical implications of these CSFs can provide useful managerial direction in hiring, training, evaluation and reward systems. First, some CSFs are obviously learned talent. Bank marketing involves the willingness and skill to work effectively with others and goal setting implies the need for goal achievement. Long-term relationships with customers have become very important to a bank's staff in banking operations, and it can be achieved through personal reinforcement via a mastery and reward mechanism. Thus, management talent has the opportunity to improve commercial bank success by engaging in direct training exercises, evaluation activities and feedback procedures. Moreover, the development of management talent takes time; it may need five years or more. Then the commercial bank has to establish an appropriate reward system, to construct a workable "success cycle". Second, these CSFs are also influenced by a proper hiring process and can be molded through bank socialization processes, managerial training exercises, reward incentives, and reinforcement. That is to say, the factor titled "ability of bank operation management", comprising staff politeness and kindness, the speed of handling business, the ability of internal auditing and the ability of computerization, is not characterized by general traits and aptitudes. These traits and aptitudes can be successfully learned through a variety of procedural and meta-cognitive training. Some CSFs are learned, and this learning could be developed such that it may procure a competitive advantage, encouraging a bank to become a learning organization through which it could create alternative ways for its staff to work and live together in a learning environment (Senge, 1990). In a learning organization, bank staff would always be inquiring into the systemic consequences of their actions, rather than just focusing on local consequences.

Note that the listed four factors are not equally important. In reality, we find that the first factor, the ability of bank operation management, contains half of the top ten importance rating success items and represents the most important CSF. We single out three reasons explaining this CSF. First, a

bank staff handles voluminous customer transactions on a daily basis and it has to face a high frequency of operational activities. A high-speed, production-line style of operational process is required and the ability of bank operation management (say, computerization) is a well-defined CSF in nature. Second, bank transactions may involve a high amount of deposits/loans and the related financial risk of each "incorrect" record of transaction is rather high. A sound internal auditing and control system is very reassuring for customers and will engender confidence in them. Third, the bank staff has, to a certain extent, to make arbitrary judgments because customers usually demand that the bank staff settle their transactions in a very short time. An appropriate delegation of duties to the first-line staff is a necessary task in the daily running of a bank. Thus, management ability in the bank manager is critical; the ability of operation management is evidently a CSF in our study.

Finally, it should be noted that our results are limited to the domain of the identification of success items. The majority of the items are based on previous research and on the results of the pretest of our survey. The success items can be modified when further research is conducted. For instance, a discovery-oriented research through comprehensive interviews with several top-level bank managers in an attempt to identify success items is an option. In this research, we utilize a "self-reporting" method to identify the bank's strategy. This method may involve a person's subjective cognitive problems, e.g. only four respondents to our survey justified their strategy as a reactor strategy because few bank managers will acknowledge that they lack a consistent business strategy. A parallel indicator relating to the classification of a bank's strategy can be adopted in order to cross-check the results. Any generalization of our CSF results beyond the bank context, especially their importance rating as success items and the difference between various strategies, should be made with caution.

References

- Aaker (1989), *Strategic Market Management*, Prentice-Hall, Englewood Cliffs, NJ.
- Bamberger, I. (1989), "Developing competitive advantage", *Long-Range Planning*, Vol. 22 No. 5, pp. 27-35.
- Boynton, A.C. and Zmud, R.W. (1984), "An assessment of critical success factors", *Sloan Management Review*, Vol. 25 No. 4, Summer, pp. 17-27.
- Byers, C.R. and Blume, D. (1994), "Tying critical success factors to systems development",

- Information & Management*, Vol. 26 No. 1, pp. 51-61.
- Canals, J. (1993), "Competitive strategies in European banking", *Marketing Management*, Vol. 2 No. 2, pp. 206-10.
- Crag, J.C. and Grant, R.M. (1993), *Strategic Management*, West Publishing, St Paul, MN.
- Dvir, D. and Shenhar, A. (1990), "Success factors of high-tech SBUs: toward a conceptual model based on the Israeli electronics and computers industry", *Journal of Product Innovation Management*, Vol. 7 No. 2, pp. 288-96.
- Guimaraes, T. (1984), "Ranking critical success factors", *Proceedings of the Fifth International Conference on Information Systems*, Calgary, Alberta.
- Hofer, C.W. and Schendel, D. (1978), *Strategy Formulation: Analytical Concepts*, Richard D. Irwin, Homewood, IL.
- Johnson, F.P. and Johnson, R.D. (1985), *Commercial Bank Management*, Dow Jones-Irwin, Homewood, IL.
- Kay, L.K. Thomas, W.L. and James, G. (1995), "Critical success factors in captive, multi-line insurance agency sales", *Journal of Personal Selling and Sales Management*, Vol. 15 No. 1, Winter, pp. 17-33.
- Kim, J. and Mueller, C.W. (1978), *Factor Analysis: Statistical Methods and Practical Issues*, Sage Publications, Beverly Hills, CA.
- Leidecker, J.K. and Bruno, A.V. (1984), "Identifying and using critical success factors", *Long-Range Planning*, Vol. 17 No. 1, pp. 23-32.
- Martin, J. (1990), *Information Engineering: Book II: Planning and Analysis*, Prentice-Hall, Englewood Cliffs, NJ.
- McDaniel, S.W. and Kolari, J.W. (1987), "Marketing strategy implications of the Miles and Snow strategic typology", *Journal of Marketing*, Vol. 51 No. 1, October, pp. 19-30.
- Miles, R.E. and Snow, C.C. (1985), *Organizational Strategy, Structure and Process*, McGraw-Hill, New York, NY.
- Nunnally, J.C. (1987), *Psychometric Theory*, Prentice-Hall, Englewood Cliffs, NJ.
- Porter, M.E. (1985), *Competitive Advantage*, Free Press, New York, NY.
- Rai, A., Borah, S. and Ramaprasad, A. (1996), "Critical success factors for strategic alliances in the information technology industry: an empirical study", *Decision Sciences*, Vol. 27 No. 1, pp. 141-55.
- Rochart, J.F. (1979), "Chief executives define their own data needs", *Harvard Business Review*, Vol. 57 No. 2, March-April, pp. 81-92.
- Rochart, J.F. (1982), "The changing role of the information system executive: a critical success factors perspective", *Sloan Management Review*, Vol. 24 No. 1, Fall, pp. 3-13.
- Segev, E. (1987), "Strategy marketing and performance: an empirical investigation", *Management Science*, Vol. 33 No. 2, pp. 258-69.
- Senge, P.M. (1990), *The Fifth Discipline: The Art and Practice of the Learning Organization*, Doubleday, New York, NY.
- Shortell, S.M. and Zajac, E.J. (1990), "Perceptual and archival measures of Miles and Snow's strategic types: a comprehensive assessment of reliability and validity", *Academy of Management Journal*, Vol. 33 No. 4, pp. 817-32.
- Srinivason, A. (1985), "Alternative measures of system effectiveness: associations and implications", *MIS Quarterly*, Vol. 9 No. 3, pp. 243-53.
- Stevens, J. (1986), *Applied Multivariate Statistics for the Social Sciences*, Lawrence Erlbaum, Hillsdale, NJ.
- Wilde, P.R. and Singer, E.M. (1993), "Banks versus insurers: if the banks win, does anyone lose?", *Journal of the American Society of CLU & CHFC*, Vol. 47 No. 3, pp. 58-63.