

ISSN 1833-3850

# **INTERNATIONAL JOURNAL OF BUSINESS AND MANAGEMENT**

**Vol. 3, No. 10  
October 2008**

**Chief Editor**

*Robert Joe*

**Co-editors**

*Tony Smith*

*David Liu*



**Canadian Center of Science and Education**



## Contents

Teams and Projects: A Literature Review	3
<i>Guru Prakash Prabhakar</i>	
Mergers and Acquisitions: Some Empirical Evidence on Performance, Financial Characteristics and Firm Sustainability	8
<i>Maran Marimuthu</i>	
Social Responsibility and Sustainable Development of China's Private Enterprises	16
<i>Xuefeng Liu</i>	
Problems and Countermeasures in the Construction of China's Entrepreneur Team	20
<i>Huiyuan Mao, Xinliang Zhao</i>	
Determinants of Purchasing Imported Products in a Regular Basis: Development of a Regression Model	25
<i>Jashim Uddin, Shehely Parvin, Md. Lutfur Rahman</i>	
Experience Reference from the Financial Support Practices for Japan's Small and Medium-Sized Enterprises	33
<i>Zhaozhen Fan</i>	
Risk Occurrence Assessment of the Background Conformity Conditions of Inspection and Quarantine Based on FMEA	37
<i>Yunhui Dai, Yue Xue, Zhijun Han, Wei Zhang</i>	
Intellectual Capital Performance of Pakistani Listed Corporate Sector	45
<i>M. A. Majid Makki, Suleman Aziz Lodhi, Rashid Rahman</i>	
Analysis of the Convergence of Regional Economic Growth in Beijing	52
<i>Daqing Shen, Ruiqiang Wang &amp; Nan Yi</i>	
A Research on the Structure of Customer's Service Recovery Expectation	59
<i>Qing Cong, Jianbo Fu</i>	
Fraud Detection and Audit Expectation Gap: Empirical Evidence from Iranian Bankers	65
<i>Mahdi Salehi, Zhila Azary</i>	
Enterprise Patent Strategy and Development of Guangxi Sugar Industry	78
<i>Jun Hong, Hao Wu, Bing Jia</i>	
A Review on Chinese Management Pattern Innovation	83
<i>Chongjun Fan, Fenglan Huang, Xiaoshuang Guo</i>	
Mutual Fund vs. Life Insurance: Behavioral Analysis of Retail Investors	89
<i>Dr. Bhagaban Das, Ms. Sangeeta Mohanty, Nikhil Chandra Shil</i>	
Basic Theoretical Problems in Pension Accounting	104
<i>Junxun Li, Xiaoyan Wei</i>	
On the Construction and Evaluation of Power Supply Enterprise's Strategic Capability	107
<i>Shengming Hou</i>	
Conservatism and Accruals: Are They Interactive? Evidence from the Greek Capital Market	113
<i>Panagiotis E. Dimitropoulos</i>	



## Contents

Thoughts on Risk Management for Financial Institution Undertaking Derivative Trade----- A Comparative Analysis of Barings Bank Event and Societe Generale Event <i>Dacheng Qiu, Yongli Jin</i>	122
Intangible Assets-According to German GAAP <i>Heng Wang</i>	125
The Effectiveness of Relationship Marketing Strategies in Department Stores <i>Suzanne Hanley, Rose Leahy</i>	133
Dealing the Problems in Exports through Corporation Social Responsibility <i>Zhonglei Ju, Qigang Yuan</i>	141
Work Values of Baby-Boomers and Generation X of the Chinese Community in Malaysia <i>Lim Yet-Mee, Pek Chuen-Khee, Yee Aik-Phoay</i>	147
A Review Research of Errors Caused in Auditing Process <i>Shiliang Xia</i>	154
Self-Initiated Expatriates: An Interpretative Phenomenological Analysis of Professional Female Expatriates <i>Ceili Fitzgerald, Liza Howe-Walsh</i>	156
Statistical Analysis and Empirical Study for Life Insurance <i>Xiang Jiang, Jian Ni, Weiqi Wu</i>	176
Ethical Leadership and Business Decision Making in Contemporary Times <i>Aristarchus A A Nikoi</i>	183



## Teams and Projects: A Literature Review

Guru Prakash Prabhakar

Bristol Business School

University of the West of England

Coldharbour Lane, Frenchay Campus

Bristol- BS16 1QY, UK

Tel: 44-117-328-3461 E-mail: guru.prabhakar@uwe.ac.uk

### Abstract

Teams and their constituents are clearly one of the critical success factors in a project. Symbiosis among team members is a must, but it does not necessarily mean that they need to agree on every point. This paper attempts to highlight the constituents of a team, criteria for team membership, team climate and the role of a project manager in leading teams.

**Keywords:** Project teams, Project manager, Project leader

### 1. What is the meaning of the term “Team”?

Verma (1997) describes team approach as a distinctive way of working that harnesses the collective skills, strengths, and energy of team members.

Robinson & Robinson (1994) and also Thamhain (1988) define a team as a group of people, but all groups do not qualify as teams. At times, a group may be formed just for administrative purposes or for achieving personal goals or for social affiliation. At other times, committees can stifle creativity and hinder decision-making. However, occasionally, a group of people combine high morale, effective task performance and a clear relevance to the organization. A team is a group of people who work interdependently, who are committed to common goals, and who produce high quality results.

Katzenbach and Smith (1994) defined a team as "A small number of people with complementary skills who are committed to a common purpose, performance goals, and common approach for which they hold themselves mutually accountable."

Teamwork is a symbiotic process which leads to a much better result that is greater than the integration of individual performances. Thamhain (1988) describes effective teams as the ones that produce high quality results and succeed in spite of many difficulties and cultural or philosophical differences. Effective teams have several task-oriented and people-oriented characteristics. Thamhain (2004) debates that the working environment within the project team has a significant impact on project success, and therefore suggests that the project manager has a significant leadership role in blending the team.

One of the most important responsibilities of project managers is to build effective teams. Team building is a process of transforming a group of individuals with different interests, backgrounds, and expertise into an integrated and effective work unit. Although this process varies complexity, nature and size of project.

In the book Harvard Business Essentials (2004) the success of project work is naturally affected by the people who participate. A good management and a sound organizational structure matters. But neither will produce a satisfactory outcome if the right people are not on board – or if those people are not clear on their roles. I try to broadly describe the main players on a project with the characteristics of effective project managers and project teams.

### 2. Project Manager

Every project has a single manager. The project manager is the individual charged with planning and scheduling project task and day-to-day management of project execution. He or she is also the person with greatest accountability for the endeavour's success. This person receives authority from the sponsor and plays a central role in each phase of the project's life cycle, from design and organization to project closedown and evaluation- and everything in between.

A project manager has many activities to be performed, for example:

(1) Recruit effective participants

- (2) Provide a framework for the project’s activities
- (3) Keep the vision clear
- (4) Coordinate activities
- (5) Negotiate with higher authorities, and with the sponsor in particular
- (6) Mediate conflicts
- (7) Identify needed resources
- (8) Set milestones
- (9) Manage the budget
- (10) Ensure that everyone contributes and benefits
- (11) Keep work on track; and
- (12) Assure that project goals are delivered on time and on budget.

**3. Project Team Leader**

A leader emerges, whereas a manager is appointed. This means that a leader has power or influence on individuals in a team whereas a manager exercises authority which is vested in his or her position. A leader commands respect due to his or her influence which could be due to soft or hard skills or a combination of both. Sometimes large projects are organized to include a project team leader who reports directly to the project manager, as shown in the figure below. In small projects, the project manager wears both hats.

The team leader cannot act like the boss and still obtain the benefits normally associated with team-based work. Instead, the team leader must adopt five important roles:

- (1) Initiator
- (2) Model
- (3) Negotiator
- (4) Listener and
- (5) Coach.

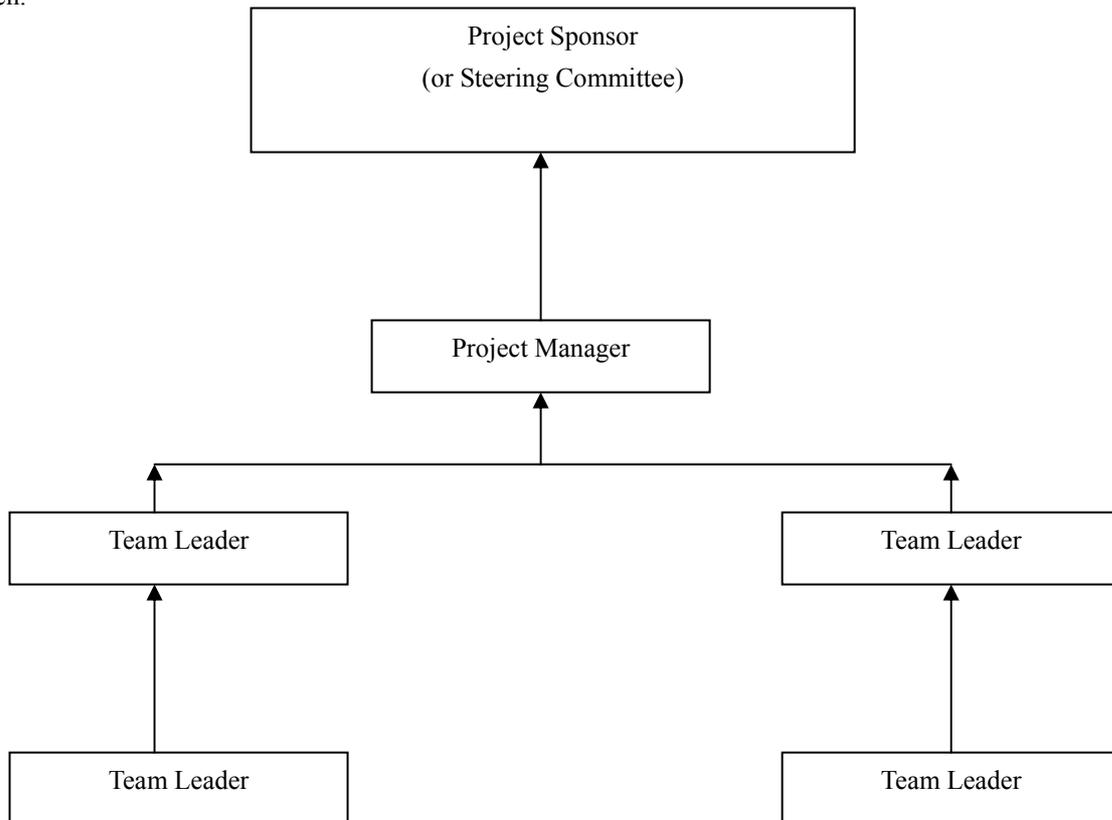


Exhibit 1: Project Hierarchy: Extracted from Harvard Business Essentials (2004)

**4. Criteria for Project Team Membership**

A specific skill set is a must to have for project team members that differs from one project to another. Broadly the skills needed could fall under the following general categories:

- (1) Technical skills
- (2) Problem-solving skill
- (3) Interpersonal skill
- (4) Organizational skill

**5. Characteristics of Effective Project Teams**

Apart from the particular skills that people bring to a project, what else should one look for? The literature on team-based work provides some insights. That literature points to several qualities as ingredients in team or project success. They are:

Competence

A clear and common goal

Commitment to the common goal

An environment within which everyone contributes and everyone benefits

A supportive structure

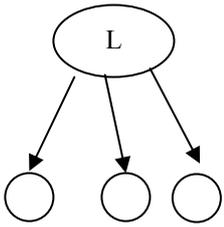
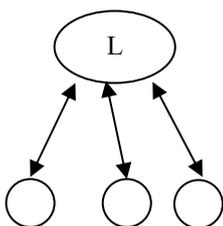
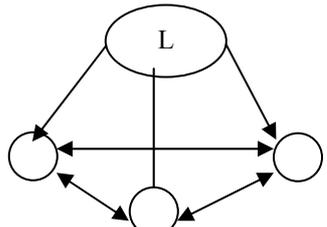
	Collection	Work Group	Team
	Dependent	Independent	Interdependent
Maturity Continuum			
Management Role/ Style	Tell	Influence	Coach
Management Role/ Style	Child	Teenager	Adult

Exhibit 2: How a team differs from a group and a collection of people. Extracted from Verma (1997).

According to Verma (1997), operating in the 21st century, project managers face the challenges of operating in a project environment characterized by high levels of uncertainty, cross-cultural teams, and global competition. A clear understanding of human aspect in project management and its effective use are required to inspire project stakeholders to work together in order to meet and beat project objectives.

As indicated by Flaatten, McCubbrey, O’Riordan and Burgess (1992), project team members are selected according to the skill requirements for the particular phase being undertaken. How many roles are identified and how specific they are depends mostly on the size and the complexity of the project. Small projects are informally organized, with each team member potentially capable of playing any of the roles.

Medium-sized teams have a more rigorous specialization. This specialization may be along functional or technical lines. Large projects need both functional and technical subdivisions at the same time. In addition, project management is usually not performed by a single individual. The project leader represents the team to the outside and implements the steering committee’s decisions. He or she also defends the project team vis-à-vis the steering committee. Other team member roles are dictated by the nature of the work to be performed and the skills required.

## 6. Team Climate

Reddin (1988) says that the team climate is characterized by interaction between individuals and units. The climate places a high value on communication in group settings. It is not just two-way communication that is important, but also communication multi-way, upwards, down-wards and laterally. There is less concern than average about power differentials between individuals or units.

Verma (1995, 1996) brings out the important interpersonal skills required to be a project manager that are: communication, team building, coaching, motivating, decision-making, delegating, training, directing, persuading/influencing, negotiating, and supporting those involved in the project. Project managers must establish a climate of open communication and maintain effective communication links across the organizational interfaces.

Various researchers, for example, Badaway (1982), Einsiedel (1987), Thamhain (1991) have found out that project management requires expertise and skills in three primary areas:

Leadership and interpersonal

Administrative

Technical

Verma (1995, 1996) argues that successful project managers combine the three above mentioned skill types. Kloppenborg and Petrick (1999) suggest that project leaders have a role in developing team characteristics into a collective set of virtues including:

- Ethics
- Respect and trust for others
- Honesty
- Prudence
- Courage
- Responsible use and sharing of power.

Thus, from the preceding discussion it is clear that leadership plays an important role in team-performance. It helps a team function as a well-knit unit as opposed to a group of individuals.

## 7. Team Dynamics

Let us examine another highly dynamic aspect in the project leadership situation; the changing team and work needs that a project manager must combine to produce a successful outcome. Tuckman's (1965) team development model draws attention to distinct phases of group transformation and development commonly referred to as the forming, storming, norming and performing stages.

Tuckman (1965) believes the team development process can be sub-conscious but if the group is aware of the stages then the team can be more effective more rapidly. This quicker extra performance is of particular interest in project management. Leaders should be able to identify the cycle of their team to know when it is likely to be the highest performing and also when it will tend to lack motivation. The forming stage involves identifying the task and accomplishing it. The group gathers information about the tasks and other team members. There is discussion on the standard organizational processes and people are concerned with routines and organizational issues.

Tuckman (1965) does not believe that there is much task accomplishment at this stage, so perhaps not the best stage for a project management team to linger in. As the team advances into the storming stage, the group members argue amongst themselves, whether they agree or not on the immediate tasks to be performed. There is discord, tension and powerplays.

In the third phase, norming, the task goal takes priority over individual quarrels and there is more willingness to adhere to the group and avoid conflict so discussions are friendlier. People listen more to each other and the team is able to develop group processes that start to produce a more practical level of task performance.

Performing sees the individual changing his behaviour in accordance with group and task needs. The group learns how to solve conflicts so that it can move on with the task in hand. There is interdependence and flexibility. The processes are carefully refined to produce a high level of performance.

Awareness of the forming, storming, norming and performing cycle can be useful to a project manager. Verma (1997) thinks that progress from one stage to the next may vary from team to team, influenced by the maturity level of the team members, the project manager and overall project environment. He believes that the project manager must move the team along the cycle to the last performing stage as fast as possible.

On a project, the time factor is a powerful driver both in terms of task time constraints and pressure on the individual. Pinto and Thoms (1999) argue that project leaders must possess or develop temporal skills that align with the various tasks and situations that they must deal with to improve their chances for success. This time influence also has a clear effect on the team dynamics during the project. This impact could go so far as to affect the widely accepted team development model of forming, storming, norming and performing. Tuckman (1965) noted that time pressure has an effect on the group transformation process that could shape the cycle.

### Conclusion

To summarise, a skilful project team management is vital to project execution. A team goes through different stages of development during the tenure of a project. A constructive team climate would motivate the team members and the same will reflect on the overall team performance. Good leadership plays an important role in creating a positive team ambience.

### References

- Badaway, M.K. (1982). *Developing Managerial Skills in Engineers and Scientists*, New York: Van Nostrand Reinhold.
- Einsiedel, A.A., Jr. (1987) Profile of effective project managers, *Project Management Journal*, pp. 51-56.
- Flaatten, P.O., McCubbrey, D.J., O'Riordan, P.D. and Burgess, K. (1992). *Foundations of Business Systems* (second edition), Andersen consulting Arthur Andersen & Co., S.C., The Dryden Press.
- Harvard Business Essentials (2004). *Managing Projects Large and Small: The Fundamental Skills for Delivering on Budget and on Time*.
- Katzenbach, J.R. & Smith, D.K. (1994). *The Wisdom of Teams*, HarperCollins, New York, pp. 1-148.
- Kloppenborg, T. J., & Petrick, J. A. (1999). Leadership In Project Life Cycle & Team Character Development, *Project Management Journal*, 30(2), p. 8.
- Pinto, J. K., & Thoms, P. (1999). Project leadership: A question of timing. *Project Management Journal*, 3(1).
- Reddin, B. (1988). *The output oriented organization*, Gower publishing company limited, p.73.
- Robinson, G. & Robinson, S. (1994). Notes and handouts for project management course sponsored by the School of Engineering Science and presented by the department of Continuing Studies, Simon Fraser University, pp.6-14.
- Thamhain, H.J. (2004). Linkages of project environment to performance: Lessons for team leadership. *International Journal of Project Management*, 22(7), 533-544.
- Thamhain, H.J. (1991). Developing project management skills, *The Project Management Journal*, pp. 39-44.
- Thamhain, H.J. (1988). Team Building in Project Management, *Project Management Handbook*, Second Edition, Eds. Cleland D.I and King, W.I., New York: Van Nostrand Reinhold, pp.8-15.
- Tuckman, B. (1965). Developmental sequence in small groups. *American Psychological Association, Psychological Bulletin*, 63(6), pp. 384-399.
- Verma, V. K. (1997). *Managing the project team*. Project Management Institute. Newtown Square, PA. pp. 72.
- Verma, V. K. (1996). *Human resource skills for the project manager*. Project Management Institute. Newtown Square, PA.
- Verma, V.K. (1995). *Organizing projects for success*. Project Management Institute. Newtown Square, PA.



## Mergers and Acquisitions: Some Empirical Evidence on Performance, Financial Characteristics and Firm Sustainability

Maran Marimuthu

Department of Finance

Faculty of Accounting and Management

Tunku Abdul Rahman University

40000 Kajang, Selangor DE, Malaysia

Tel: 60-3- 9019-4722 E-mail: maran@mail.utar.edu.my

### Abstract

The study examines the performance and financial characteristics of non-financial companies (low and high sales growth companies) that were involved in mergers and acquisitions in Malaysia. Capital gains were used to measure the companies' performance over a period of two years and profitability measures (ROE, EPS, dividends payout, gearing ratio, PE ratio) were incorporated in the study. Paired sample testing and independent t-test analyses were adopted. The study reveals that there is no significant difference in terms of performance between low and high sales growth of companies in the presence of economic shock. However, high sales growth companies which are small in size seem to be more vulnerable to economic shock compared to low sales growth companies. In terms of financial characteristics, statistically, there are no significant differences between the two groups but the low sales growth companies (which are large in size) tend to register higher returns to shareholders.

**Keywords:** Mergers, Acquisitions, Financial characteristics, Performance

### 1. Introduction

Merger and Acquisition (M&A) activities in Malaysia obviously started in the 1970's which were largely confined to oil palm and rubber plantation companies. The involvement of foreign companies in the M&A activity was also noted to be quite significant especially in the plantation sector. In the 1980's, rapid growth particularly in the industrial sector coupled with the privatisation policy have boosted many companies to become more acquisitive in diversifying their businesses. Among the major acquisitions in the 1980's were, Sports Toto taken over by Melewar Corporation and B & B Enterprise Sdn Bhd (1985), Big Sweep Lottery taken over by Pan Malaysian Sweeps Sdn Bhd (1989) and UEM took over the North South Highway Project (PLUS) in 1987.

However, in the 1990's, merger and acquisition activities started grabbing the headlines. Several Malaysian companies were involved in takeover proposals or acquisitions of substantially equity stakes in companies both foreign and local, while others acquired property and yet others were subjects of mergers. Among the ten largest corporate deals in 1994 were acquisition of 32 per cent in MAS made by Malaysian Helicopter Services; acquisition of 45 per cent stake in SESCO by Dunlop Estate; and takeover of Penang Bridge Concession by Acidchem. According to Merrill Lynch International Bank Ltd, Malaysia was the leading Asia Pacific "acquirer" and "target" nation for mergers and acquisitions in 1996. It was noted that the volume of completed deals in the region has grown at annual growth rate of 15.4 per cent against the global annual growth rate of 8.1 per cent between 1990 and 1996 (Note 1).

In light of the financial crisis which broke out in July 1997, many companies in Asia in general and Malaysia in particular faced serious financial distress. In the case of Malaysia, many arguments made for the downfall of those companies and one of the big arguments was on the issue of over-diversification via mergers and acquisitions. However, to what extent M&A activity had caused poor performance of those companies remains debatable. Many studies have been made on mergers and acquisitions but surprisingly, very few have considered some specific or unique characteristics of acquiring companies and the effect of the financial crisis.

#### 1.1 Definitions

Weinberg and Blank (1979) define *merger* as an arrangement whereby the assets of two companies become vested in or under the control of one company (which may or may not be one of the original two companies), which has all or substantially all, the shareholders of the two companies.

Charles A. Scharf (1971) describes the term *acquisition* as any transaction in which a buyer acquires all or part of the assets and business of a seller or part of stock or other securities of the seller, where the transaction is closed between a willing buyer and a willing seller, i.e., a seller whose management agrees to the acquisition and helps negotiate its terms.

Nonetheless, there are a few types of acquisition. The two types of acquisition that have been widely practised in most organisations are asset acquisition and stock acquisition. An *asset acquisition* is an acquisition in which the buyer acquires all or a part of the assets and business of the seller, pursuant to a contract entered into between the buyer and seller. In contrast, a *stock acquisition* is an acquisition in which all or a part of the outstanding stock of the seller is acquired from the stockholders of the seller. It should be noted that for this study data on acquisitions collected were based on stock acquisitions.

A takeover happens only when the control of the company of the seller passes to the buyer. For this study, the words acquisition and takeover carry the same meaning since the criterion is that the acquiring companies should have acquired at least 51 per cent of the outstanding shares of the target companies.

## 2. Literature review

Ansof (1971) found that after an acquisition, low sales growth companies showed significantly higher rates of growth, whereas, high sales growth companies showed lower rates of growth. However, even though low sales growth companies showed higher rates of growth after acquisitions, they actually suffered decreases in their mean P/E ratios, mean EPS and mean dividend payouts. The similar pattern of inconsistency found in the high sales growth companies whereby their performance levels for EPS, PE ratio, earnings and dividend payouts were greater.

Low sales growth companies financed their acquisitions through decreased dividend payouts and the use of new debts. In contrast, high sales growth companies with other strategies tended to decrease debts but increase dividend payouts. Acquisitions were in general unprofitable, as they did not contribute to increases in all of the variables of the companies' growth. Acquiring firms registered lower rates of growth as compared to the non-acquiring firms and this was more pronounced for low sales growth acquiring firms.

Ajit Singh (1971) argued that after a two-year period of takeover, there was a deterioration in their relative profitability records. He added that as in relation to the EPS, the biggest potential losers are shareholders in bidding companies who were sacrificing profits for future growth. He added that those acquiring firms could have maintained their profitability records if they were not involved in takeovers and large companies tended to engage in higher gearing and this led to higher retention ratio and eventually higher growth is attained.

Firm size and financial performance of acquiring firms can be the determinants of poor performance in the post-acquisition period (Schmidt, Dennis, Fowler and Karen, 1990). Investors do not hold more favourable expectations for related mergers than for unrelated ones and stockholder value appreciates most for vertical mergers. Hence, acquisition involving vertical integration creates more value to large companies (Michael Lubatkin, 1987) despite the findings of many studies concluded that firms participated in related acquisitions experienced superior economic returns in comparison with unrelated acquisitions. Hence, the rationale for the superior economic performance was due to the synergetic effect especially via complementary resources.

Ingham (1992) concluded that small acquisitions into an existing organisational structure might be achieved without the severe problems of loss of control and subsequent decline in performance that beset large acquisitions. Allen and Pat (1990) reiterated that an acceptable premium should be no more than the discounted cash flows of a firm, as adjusted for any efficiencies or synergies the acquisition would exploit. In the Asian context, most value creation (cost reduction) materialised from either worker layoffs or renegotiating supplier contracts during the merger process (Fabrice Desmarescaux, 1998).

Shareholders of target companies tend to benefit more from acquisition activities based on their cumulative average residuals (Kwansa 1994). Firth (1979) pointed out that there were no significant gains correlated to takeovers and surprisingly the companies could not sustain their gains during their post acquisition period. With the view of considering types of shareholders, it seems long term shareholders do not gain significantly from merger and acquisitions (Loughran and Vijn, 1997). This point is also reiterated by Kiymaz and Mukherjee (2000) as the participating companies failed to realize gains once the mergers were completed. Kummer and Hoffmeister (1978) found that share prices of the acquiring companies experience systematic deterioration during the post-merger period.

## 3. Objectives of the study

This paper makes an attempt to examine the performance of both low and high sales growth companies by incorporating the impact of the financial crisis in 1997 on both low and high sales growth companies. This paper also investigates financial characteristics of low and high sales growth companies involved in merger and acquisition activities.

#### 4. Theoretical framework and hypothesis formulation

It has been noted that the performance of acquiring companies tends to deteriorate during the post acquisition period. Low sales growth companies seem to be more stable in terms of future growth compared to high sales growth companies (Ansoff, 1971). However, there is no clear argument made over whether which group is more vulnerable to 'exogenous shocks'. In addition, shareholders of low sales growth companies tend to suffer more in their returns compared to those of high sales growth companies and large companies tend to have higher gearing policy which results in higher retention ratio and higher growth (Ajit Singh, 1971). Where gearing and size are concerned, although not many studies really intended to companies participating in mergers and acquisitions, some general findings can still be concluded. Admittedly, low gearing is always preferred to reduce the threat of insolvency (Theis and Casey, 1998). Fixed assets can support higher gearing compared to intangible assets (eg. growth opportunities) (Myers, 1977) but however, when debt financing rises, higher dividends are expected (Al-Sakran, 2001). The relationship between earnings and financial leverage is ambiguous (Thies and Klock, 1992).

Hence, low sales growth companies which are large in size, seem to be more stable as risk could be reduced through diversification. This signifies that low sales growth companies' performance (capital gains yield) is expected to be better than that of high sales growth companies especially in the presence of economic shock. Thus, the following directional hypothesis is proposed;

*H<sub>1</sub>: Low sales growth companies tend to register greater performance as compared to high sales growth companies in the presence of economic shock.*

#### 5. Definition of the variables

This capital gains yield (CGY) is calculated on a monthly basis and the formula is as follows;

$$CGY_{mt} = \frac{\text{Share Prices}_{mt} - \text{Share Prices}_{m-t}}{\text{Share Prices}_{m-t}} \times 100$$

mt = current month

m-t = previous month

Therefore, the higher the share price of the current month, the greater the capital gains will be and this denotes greater performance and vice versa.

Thus, the calculation of capital gains yield is also related to the Gordon Constant Growth Model as illustrated below;

$$\begin{array}{l} \text{Expected rate} \\ \text{of return} \end{array} = \begin{array}{l} \text{Expected} \\ \text{dividend} \\ \text{yield} \end{array} + \begin{array}{l} \text{Expected growth} \\ \text{rate or} \\ \text{capital} \\ \text{gains yield} \end{array}$$

Understandably, the higher the capital gains yield, the higher the expected rate of return ( $k_s$ ) would be and thus the performance is also said to be greater.

In addition, other forms of measures are also considered for assessing financial characteristics by incorporating some useful accounting data (profitability measures). ROE (Return on Equity), DPO (Dividends Payout), GR (Gearing Ratio), TA (Total Asset), PER (Price-Earnings Ratio) and EPS (Earnings Per Share). The formulas are as follows: ROE = (Post-tax earnings/ Total Equity) X 100, Dividends Payout = Payout Ratio (thus, 1 minus payout ratio = retention ratio (RR)), ROE x RR= Sustainable growth rate (SGR), EPS=Profit after tax/ No of shares issued, PE Ratio = Market price/ EPS, Gearing Ratio = Long term debt/ Total equity + long term debts and Total Asset=Current Asset + Fixed Asset.

#### 6. Research Methodology

This study was carried out based on takeover bids made by Malaysian listed companies in the non-financial sector over the period 1990-1995. As there was a need to strictly follow the criteria set in this study, a sample of 60 non-financial public listed companies was chosen comprising of low sales growth companies (average sales growth of 4%) and high sales growth companies (average sales growth of 10%) [Ansof, 1971]. Companies' annual reports were then used to determine the selected companies' average sales growth rates on the basis of 5 years prior to their involvement in M&A activities. Performance (Capital gains yield) is measured based on the weekly share prices of the companies over the period January 1996-December 1998, pre-crisis (January 1996-May 1997) and crisis (August 1997-December 1998). Period June - July of 1997 was excluded to avoid biasness as many companies' share prices seemed to be very unstable due to the financial crisis which broke out during period.

### 6.1 Sampling design and data collection procedure

A non-probability sampling was adopted for this study, as the selection process required some form of personal judgement in meeting the specific requirements. The data gathered for the study were secondary data. The details of the collection procedure are explained as follows; First, the process of identifying the companies that participated in M&A activities between years 1990 and 1995 was carefully carried out. To determine this, the announcement dates were used as the basis. And another rule that was strictly complied with in selecting those companies was that *an acquisition should comprise of at least 51 per cent of the target company's outstanding shares*. All this information was obtained from Investors' Digest and other related materials. Companies' annual reports were then used to determine the selected companies' average sales growth rates on the basis of 5 years prior to their involvement in M&A activities. However, the Companies Handbooks were also used, especially for obtaining accounting data such as ROE, DPO, EPS, PE, total asset and gearing ratio over the period 1990-1996. The Sequencer programme was also utilised especially in realising capital gains yield for all the selected companies over the period 1996-1998 as explained in the earlier part.

### 6.2 Data analysis techniques

T- test and paired sample testing were used to compare mean scores with respect to various periods, Pre-crisis; crisis and 1996-1998. The use of independent variables was also extended to compare mean scores with respect to a number of profitability measures at significance level 0.05.

## 7. Research results

### 7.1 Performance

Table 1 and Table 2 indicate that both low and high sales growth (LSG and HSG) companies registered a negative **capital gain yield (cgy)** over the period 1996-1998 (-11.53 per cent and -39.64 per cent respectively). Indeed, both LSG and HSG suffered decreases in their cgy even before the crisis period. As for LSG (Table 1), a significant difference can be seen in their performance between pre-crisis and crisis periods (Pair 1), but for HSG (Table 2), significant differences were registered in Pair 1 and Pair 3. It should be noted that a positive cgy (8.66 per cent) recorded during the crisis period by the LSG and as for HSG, the crisis (-5.40 per cent) worsened their overall performance.

Table 1. Mean of capital gains of low sales growth (LSG)companies

Pair	Periods	Mean (%)	Significance (0.05)
Pair 1	Pre-crisis	-20.19	0.044
	Crisis	+8.66	
Pair 2	Pre-crisis	-20.19	0.337
	1996-1998	-11.53	
Pair 3	Crisis	+8.66	0.053
	1996-1998	-11.53	

Table 2. Mean of capital gains of high sales growth (HSG)companies.

Pair	Periods	Mean (%)	Significance (0.05)
Pair 1	Pre-crisis	-34.24	0.006
	Crisis	-5.40	
Pair 2	Pre-crisis	-34.24	0.608
	1996-1998	-39.64	
Pair 3	Crisis	-5.40	0.002
	1996-1998	-39.64	

Table 3 reveals there is no significant difference between LSG and HSG in terms of their performance with respect to pre-crisis, crisis and 1996-1998 periods. However, it should be pointed out that HSG seemed to be more vulnerable to *external shocks* as compared to LSG which seemed to be more sustainable when faced with *external shocks*. Though LSG managed to bounce back during the crisis with a positive capital gains yield (+8.66), statistically, LSG companies failed to register greater performance when compared against the performance of HSG companies. Hence, the hypothesis is not supported.

Table 3. Comparison between low and high sales growth companies

Period	Company	Mean (%)	Significance (0.05)
Pre-crisis	LSG	-20.19	0.889
	HSG	-34.24	
Crisis	LSG	+8.66	0.658
	HSG	-5.4	
1996-98	LSG	-11.53	0.871
	HSG	-39.64	

### 7.2 Firm Characteristics

Table 4 presents results on profitability measures in relation to shareholder value appreciation of LSG and HSG companies. There are no significant differences between LSG companies and HSG companies with respect to all the variables particularly on the shareholder value.

The level of mean scores when compared between the two groups is inconsistent with respect to a few variables. For instance, in terms of ROE, LSG companies offered 17 per cent but HSG companies offered only 12 per cent. On the other hand, HSG companies registered higher EPS of RM0.46 as compared to RM0.43 registered by LSG companies. Where the gearing ratio is concerned, the difference between the two groups is quite exposed (64 per cent and 21 per cent) but statistically, it is not significant at 0.05.

Table 4. Mean of profitability measures of low and high sales growth companies

P/measures	companies	N	Mean	Sig (0.05)
ROE	LSG	30	17.47%	0.159
	HSG	30	12.23%	
EPS	LSG	30	42.03	0.349
	HSG	30	45.77	
DPO	LSG	30	7.26	0.507
	HSG	30	8.60	
GR	LSG	30	63.70%	0.081
	HSG	30	21.27%	
PE	LSG	30	42.14	0.662
	HSG	30	41.26	
TA	LSG	30	3192	0.138
	HSG	30	1193	

Table 5. Comparison between low and high sales growth companies

Measures	LSG	HSG
Size	Large	Small
ROE	Higher	Lower
DPO	Lower	Higher
GR	Higher	Lower
PE	Higher	Lower
EPS	Lower	Higher
Capital Gains: 96-98	Negative	Negative
Crisis	Positive	Negative

As indicated in Table 5, it is quite realistic to point out that large companies (LSG companies) that were involved in merger and acquisition activities tended to engage in higher debts, thus ROE became relatively higher but prepared to pay lower dividends in order to sustain their future growth. In addition, acquisition activities to some extent helped large companies to sustain their performance even in the presence of major shake-up in market. In the case of HSG

companies (relatively smaller) tended to have lower gearing as much of their financing activities were supported by their equity. Hence, ROE was relatively lower but nonetheless, their shareholders enjoyed getting higher yields through EPS and DPO.

### 8. Limitations

Some limitations or potential weaknesses in this study must be addressed. First, the sample involves non-financial sector which comprises of various industries thus, it is quite difficult to maintain homogeneous characteristics within the companies chosen as different industries tend to face different types of challenges. On the other hand, the sample size is limited to 30 companies for each group as there was a need to meet many requirements made for this study. Second, this study is constrained by the selection of variables as the researcher had to rely on companies' handbook and limited financial reports. Hence, the researcher had to verify the reliability of the financial data obtained in various reports and therefore limited measures used to describe the companies' characteristics.

### 9. Summary and conclusions

We have come to understand that the financial crisis had indeed further deteriorated the capital gains yield of the high sales growth (HSG) companies. Admittedly, low sales growth companies (LSG) companies had actually benefited from the crisis period or rather it could be, the effect of the crisis worked somewhat in favour with the LSG companies. It should be pointed out that M&A activities failed to boost the performance of both groups even before the crisis impacted the local industries. Lack of synergetic effect via the M&A activities and failing to consider the M&A motive in line with their strategic planning could be the major reasons for the unfavourable results as reported earlier.

However, the LSG companies managed to show a positive capital gains yield (8.66 per cent) during the crisis period while share prices of HSG companies continued deteriorating. Surprisingly, there is no significant difference between LSG and HSG companies in terms performance during the post acquisition period. This supports the argument that sales growth rates are irrelevant to measuring performance during the post acquisition period. Based on the mean scores of total asset, it has been found out that the LSG companies were basically large organisations compared to HSG companies seem to be more sustainable and able to quickly adjust themselves to *external shocks*. Meanwhile, HSG companies which are relatively smaller in size, finance their assets mainly through equity, thus their ROE becomes relatively smaller compared to that of LSG companies.

In addition, both LSG and HSG companies do not seem to differ one and another in terms of financial characteristics prior to the crisis period. However, shareholders particularly risk avoiders may feel comfortable with LSG companies for their sustainability. Though gearing ratio seems to be higher for LSG companies (63.7 per cent), the fact is that the impact of gearing is slightly *exposed* for HSG companies (gearing ratio of 21.3 per cent) but it is still insignificant

As pointed out by this study, it was not really the **diversification** that resulted from the M&A activities, but rather it was '**diworseification**' that became more pronounced for most companies during the post-acquisition period, in general and during the pre-crisis period, in particular. These findings are indeed in tune with the previous studies that have reiterated that mergers and acquisitions in general do not help companies to meet sustainable growth. Does this mean the M&A activity is a dangerous move? Undoubtedly, the motives for, and types of, mergers are the key aspects to be explored before participating in M&A activities. Indeed, in the Malaysian context, arguments can be made in various perspectives. Undoubtedly, expectation from a merger could be the main issue as short-term gains are probably very much emphasised for the selling shareholders.

### References

- Ahmad, A.M. (1999). *Law and procedure of mergers and takeovers in Malaysia*. Kuala Lumpur: Central Law Training (Asia).
- Alen, P. (1990). Excessive premiums for acquisitions dilute performance. *Savings Institutions*, 111, 56-57.
- Al-Sakran, S.A. (2001). Leverage determinants in the absence of corporate tax system: the case of Nonfinancial publicly traded corporations in Saudi Arabia. *Managerial Finance*, 27, 58-86.
- Brealey, R.A. and Myers, S.C. (1996). *Principles of corporate finance*. (5rd ed.). New York: McGraw-Hill.
- Brigham, E.F. and Gapenski, L.C. (1997). *Financial management, theory and practice*. (8th ed.). Orlando: The Dryden Press.
- Eastallworthy and Kharbanda, O.P. (1988). *Takeovers, acquisitions and mergers, strategies forrescuing companies in distress*. London: Kogan Page Limited.
- Fauzias, M.N. (1996). *Malaysian mergers and acquisitions: theory and selected cases*. Petaling Jaya: U-text.
- Firth, M. (1978). Synergism in mergers: some British results. *The Journal of Finance*, 33, 670-672.
- Firth, M. (1979). The profitability of takeovers and mergers. *The Economic Journal*, 89, 316-328.

- Franks, J. and Harris (1989). Shareholder wealth effects of corporate takeovers: the UK experience 1955-1985. *Journal of Financial Economics*, 23, 225-249.
- Ingham, H., Kiran, I. and Lovestam, A. (1992). Mergers and profitability: a managerial success story? *Journal of Management Studies*, 29, 195-208.
- Igor, A.H., Brandenburg, R.G., Portner, F.E. and Radosevich, R. (1971). *Acquisition behavior of U.S. manufacturing firms, 1946-1965*. Nashville, Tennessee, Vanderbilt: University Press.
- Kiyamaz, H. and Mukherjee, T. (2000). The impact of country diversification on wealth effects in crossborder mergers. *The Financial Review*, 35, 37-58.
- Kummer, D. and Hoffmeister, R. (1978). Valuation consequences of cash tender offers. *Journal of Finance*, 33, 505-516.
- Loughran, I. and Vijh, M. (1997). Do long-term shareholders benefit from corporate acquisitions? *Journal of Finance*, 52, 1765-1790.
- Lutbatkin, M. (1987). Merger strategies and stockholders value. *Strategic Management Journal*, 8, 39-53.
- Myers, S.C. (1977). The capital structure puzzle. *The Journal of Finance*, 5, 147-175.
- Pike, R. and Neale, B. (1999). *Corporate finance and investment: decisions and strategies*. (3rd ed.). London: Prentice Hall.
- Post, A. (1994). *Anatomy of a merger: the cases and effects of mergers and acquisitions*. New Jersey: Prentice Hall.
- Rue, L.W. and Holland, P.G. (1989). *Strategic management*. Singapore: McGraw-Hill Inc.
- Scharf, C.A. (1971). *Acquisitions, mergers, sales and takeovers*. New Jersey: Prentice Hall Inc.
- Schmidt, D.R. and Fowler, K.L. (1990). Post acquisition financial performance and executive compensation. *Strategic Management Journal*, 11, 559-569.
- Singh, A. (1971). *Take-overs, their relevance to the stock market and the theory of the firm*. Cambridge: The University Press.
- Theis, J. and Casey, M. (1999). An empirical investigation of agency relationships and capital structure of property management firms in the UK. *Journal of Property Investment & Finance*, 17(1), 27-34.
- Thies, C.F. and Klock, M.S. (1992). Determinants of capital structure. *Review of Financial Economics*, 40-52.
- Weinberg and Blank (1979). *Takeovers and mergers*. (4th ed.). London: Sweet & Maxwell.
- Weston, J.F., Siu, J.A. and Johnson, B.A. (2001) *Takeovers, restructuring and corporate governance*. (3rd ed.). US: Prentice Hall.

## Notes

Note 1. Business Times, January 11, 1995

**Appendix: List of companies**

<b>Low sales growth companies</b>	<b>High sales growth companies</b>
Sarawak Concrete Industries Berhad	Innovest Berhad
Land & General Berhad	Ho Wah Genting Group
Rahman Hydraulic Tin Berhad	Pintaras Jaya Berhad
Edaran Otomobil Nasional Berhad	UMW Industries Berhad
Kretam Holdings Berhad	Kumpulan Emas Berhad
Leong Hup Holdings Berhad	PSC Industries Berhad
Kulim Malaysia Berhad	Kemayan Corporation Berhad
Hai Ming Holdings Berhad	Repeco Holdings Berhad
Texcehem Resources Berhad	Hirota Holdings Berhad
Chocolate Products (M) Berhad	Cygal Berhad
Tiong Nam Transport Holdings	Tongkah Holdings Berhad
Hong Leong Properties Berhad	Granite Industries Berhad
IOI Corporation Berhad	Gula Perak Berhad
Gleanealy Plantations (Malaya) Berhad	Hexza Corporation Berhad
Advance Synergy Berhad	Gadek (M) Berhad
ACP Industries Berhad	Austral Amalgamated Tin Berhad
Jaya Tiasa Holdings Berhad	Ancom Berhad
Anson Perdana Berhad	Chemical Company of Malaysia Berhad
Brem Holdings Berhad	Metroplex Berhad
Trenergy (M) Berhad	OYL Industries
Khong Guan Holdings (M) Berhad	Park May Berhad
Mulpha International Berhad	Palmco Holdings Berhad
Oriental Holdings Berhad	KL Kepong Berhad
Sitt Tatt Berhad	Leader Universal Holdings Berhad
SPK Sentosa Corporation Berhad	Selangor Dredging Berhad
Setron (M) Berhad	Time Engineering Berhad
Landmarks Berhad	Faber Group Berhad
Talam Corporation	Johan Holdings Berhad
Lien Ho Corporation Berhad	Larut Tin Fields Berhad
Mega First Corporation Berhad	RJ Reynold



## Social Responsibility and Sustainable Development of China's Private Enterprises

Xuefeng Liu

Tianjin University, Tianjin 300072, China

### Abstract

Social responsibility is of great significance for the sustainable development of the whole society as well as every enterprise. Due to some misunderstandings held by China's private enterprises, some problems such as the lack of honesty, infringing upon laborers' rights and environmental pollution have been brought about. Therefore, private entrepreneurs are expected to take up their responsibility to establish the "man-oriented" concept of development, put more importance on the interests of employees, consumers as well as the whole society, hence promoting the sustainable development of our enterprises and the harmonious progress of our society.

**Keywords:** Social responsibility, Private enterprise, Sustainable development

Nowadays, it has been acknowledged by China's enterprises and has become the mainstream of national economy and the specific responsibility committed by modern enterprises to persist on the scientific concept of development as well as to create a man-oriented social environment which calls for honesty-based management and green GDP. Entrepreneurs' social responsibility plays a significant role in not only the sustainable development of enterprises themselves but also that of China's economy, environment and society. Accordingly, it is particularly important for the construction of a harmonious society whether enterprises have taken up their social responsibility and constructed their harmonious relations with employees, consumers, environment and society.

### 1. Definition and Features of Corporate Social Responsibility

Ever since the 1990s, the concept of corporate social responsibility has enjoyed increasing world reputation. World Bank defines corporate social responsibility as an aggregation including enterprises' relationship with others close to them in interests, their values, conformity to laws and regulations as well as some relevant policies and practice showing respect for human beings, community and environment. It is a responsibility taken up by enterprises for sustainable development in order to improve those interest-related people's living quality. While, according to the European Union, it is defined as "enterprises' efforts to integrate their concerns with society and environment in their operation as well as their interaction with those interest-related people based on their resources". Besides, it is defined by Business for Social Responsibility as "achieving business success by showing respect for moral values as well as for human beings, community and environment".

According to all the above definitions, it is clear that in addition to their traditional economic roles, enterprises are also expected to play their social roles as "agents" in order to guarantee the sound operation of market economy. As the agents of social resources, enterprises should serve not only their shareholders, consumers and employees but also the whole society. Therefore, its general connotation refers to enterprises' responsibility in many ways to guarantee social welfare, stability and development, which includes (1) enterprises' responsibility for their owners by guaranteeing profit and development, (2) enterprises' responsibility for their consumers by providing good and cheap goods, (3) enterprises' responsibility for creditors by paying off debt on time, (4) enterprises' responsibility for employees, including good salary, favorable working conditions, opportunities for training and promotion, (5) enterprises' responsibility for government and community by paying taxes, profits, fees legally and providing equal employment opportunities in order to improve social and political stability and economic prosperity, (6) enterprises' responsibility for social environment mainly by protecting and treating environment in order to provide a better living place for residents.

According to the above detailed analysis, there are two layers of features in corporate social responsibility. First is the social responsibility imposed by laws and regulations, such as safe production, environmental protection, product quality, after-sale service and so on. This kind of responsibility is normally imposed by force by relevant laws, regulations and industry standards. Second is the spontaneous social responsibility required by morality and values, such as higher environmental protection standards, higher quality standards and charity and so on. This is based on the recognition of the harmony among human beings, nature and society in our corporate culture, reflecting entrepreneurs' humanistic quality and values with the former as the premise and base for enterprises' survival and the latter as an important factor for enterprises' constant profit. Therefore, a socially-responsible entrepreneur should realize that

corporate social responsibility should include not only that for shareholders but also for employees, consumers, community, clients, government and so on.

## **2. The Necessity of China's Private Enterprises Holding Social Responsibility**

During the past two decades of reform and opening, China's private economy has come into existence and achieved rapid development. Currently, over 3,600,000 private enterprises all over China have taken 130,000,000 employees and their contribution has accounted for 65% of GDP as well as more than 50% of taxes. Obviously, private economy has become the important pillar in China's economic growth and social stability. However, due to the severe lack of social responsibility among some private enterprises, some problems, such as the lack of honesty, market disorder, infringing upon laborers' rights, environmental pollution and shortage of migrant workers and so on, have hindered the further development of China's economy. Accordingly, in addition to their historical mission, greater social responsibility should be held by them since their social responsibility plays a particularly important role in enterprises' sustainable development and social progress.

First, in the aspect of its development course, the development of private economy should be attributed to the policies made by CPC and government as well as the support of the whole society. Therefore, benefiting most from reform and opening, private enterprises are expected to hold their social responsibilities, develop their production, create great wealth, hand in taxes, provide more jobs, satisfy people's material and cultural demands and hence to contribute for social stability and harmonious society in addition to enjoying better environment for their development created by government and the whole society.

Second, in the aspect of consumer protection, it is beneficial for the sustainable development of enterprises as well as the harmony of the whole society. As small or medium-sized enterprises, most private enterprises in China deal with dispersed and mobile clients, so it is hard to be known among clients whether they stick to responsible operation. Furthermore, due to their changeable business ranges, enterprises put little importance on the comments they receive from others, hence resulting in some irresponsible actions, such as manufacturing fake and inferior commodities. Their irresponsibility for consumers has created a very bad impression on the whole society and consequently, has damaged their own images as well as hindered their own development. Seen from the above, it is beneficial for enterprises themselves to establish a strong sense of social responsibility in order to achieve recognition and supports among consumers.

Third, in the aspect of employee's rights and interests, China's private enterprises should strengthen their sense of responsibility to guarantee their employees' wages and security. Generally speaking, most private enterprises mainly earn meager profit by dealing with some low-technology industries. In order to earn more profit, some will fringe upon employees' interests by lowering their wages, lengthening their working time and providing inferior working environment. It has been shown in the current lack of migrant workers and some major mine accidents that it is immoral and unsustainable to develop enterprises by maltreating workers. Therefore, it is urgent for these private enterprises to fulfill their social responsibility.

Fourth, in the aspect of resources and environment, it is quite important for private enterprises to utilize resources effectively and protect environment in order to realize the sustainable development of China's economy and society. With rapid economic development and the approaching of the heavy-and-chemical-industry era, China's economy is faced with resource shortage and environment crisis. Furthermore, due to insufficient capital, laggard technology and management and limited human resources, most private enterprises invest in low-technology, high-pollution and high-energy-consumption projects as well as take extensive operation, accounting partly for excessive consumption of resources and energy and environmental pollution. Actually, it is quite essential to strengthen the sense of social responsibility among private enterprises, to convert the pattern for economic growth, to save resources and to protect ecological environment.

To sum up, in addition to their own sustainable development, private enterprises' social responsibility is closely related to that of economy, environment and society.

## **3. Some Misunderstandings about China's Private Enterprises Holding Social Responsibility**

At present, there are some problems in China's private enterprises' social responsibility and some misunderstandings about social responsibility among many private entrepreneurs.

(1) Putting corporate social responsibility and corporate profit in opposition. According to many entrepreneurs, they are taking great risks not to contribute to others freely but to earn profit. Actually, in the 1950s to 1960s, a Nobel Prize winner in Economy, Milton Friedman, described corporate responsibility as making as much profit as possible. Although this theory lost its dominant role in western nations in the 1970s, many Chinese entrepreneurs are still following it as their guideline for corporate management. Therefore, they put corporate social responsibility and profit in opposition, creating an impassable gulf between the two.

(2) Regarding enterprise scale proportional to social responsibility. Many private enterprises claim that state-owned enterprises should take greater responsibility due to their large scale, sufficient fund, close relationship with government and society, especially their advantages in the domestic and international market as well as their influential images and brands. In contrast, private enterprises, especially those small and medium-sized ones, due to their limited scale, low profit, less superior treatment from government, less social influence, can be free from social responsibility.

(3) Putting SA8000 on an equal position to corporate social responsibility. SA8000, a corporate social responsibility certification system established by some organizations led by an American folk organization, is intended to improve workers' working conditions all over the world through moral purchases. At present, some large international purchase groups are quite interested in the products made by those enterprises with SA8000 certification. For example, Nike, Wal-mart, Carrefour and McDonald's require their cooperative enterprises in China to be certified by SA8000. Therefore, some private enterprises put it on an equal position to corporate social responsibility. However, the latter covers a wider range, including protecting laborers' rights and interests as well as improving product quality, safe production and environmental protection and so on. Improper knowledge about corporate social responsibility has hindered the sound development of private enterprises.

(4) Regarding donation as the only way to fulfill corporate social responsibility. Some private enterprises maintain that donation can take place of their concerns with product quality, working conditions, employee guarantee, tax payment and environmental protection in fulfilling their social responsibility.

Just due to the above misunderstandings, China's private enterprises are suffering from some key problems. First is the escape from their obligatory roles in social support; second is their indifference about social employment; third is their indifference about environmental protection by basing their profit-earning on damaging and polluting environment; fourth is the lack of honesty and mercenary actions, reflected in providing defective services or products and deceiving consumers, deceiving stockholders by collecting money from the market through false information; fifth is earning profit for owners by exploiting employees' income and worsening their working conditions; sixth is the lack of proper sense to provide public products for the whole society and the indifference about public welfare. This lack of social responsibility among private enterprises has caused severe problems in the whole society, deteriorated the enterprise images as well as the environment for their own development, hence influenced their further development. Therefore, in order to achieve further development, private enterprises are expected to do something more than pure economic activities, that is, to take wider and more humanistic social responsibility.

#### **4. The Construction of Social Responsibility in China's Private Enterprises**

In what way will private entrepreneurs take greater social responsibility? First of all, they should provide high-quality products and services to earn profit and to be responsible for their shareholders, which is their basic responsibility. In addition to that, they are expected to take responsibility for consumers, employees, environment and society. Therefore, their social responsibility should be constructed in four aspects including quality, employees, environment and public welfare.

(1) Sticking to honest operation and providing high-quality products and services for consumers. With honesty as the basic principle of market economy, some dishonest or deceptive actions, such as fraud practice, producing fake or inferior products, breaking contracts, tax evasion as well as debt evasion, have spoiled the sound commercial atmosphere, infringed upon the public interests and damaged the images of the enterprises themselves. Accordingly, private enterprises should establish an "honesty-oriented" operation notion in which credit should be emphasized, quality should be based on and innovation should be relied on to improve enterprises' management and provide high-quality products and services. Only in this way will they attract more consumers and survive in the fierce market competition.

(2) Emphasizing security responsibility construction and constructing harmonious labor relations. (1) Due to their poor bases, including facilities, management, employee quality labor protection treatment as well as medical treatment, private enterprises are lacking in security guarantee. With the dropout of public economy from some areas and the development of private enterprises in more areas of our national economy, private enterprises are playing a more and more important role in safe production. Therefore, it is critical to strengthen their security supervision to enable them to improve laborers' working environment and living conditions and guarantee their employees' safety and health. (2) With China becoming the world manufacturing center gradually, China's private enterprises are faced with more fierce international competition; therefore, a highly-qualified, skilled and energetic staff team seems to be particularly important. Private enterprises should realize the function and value of employees, show respect for them, protect and develop their legal rights and interests. By establishing perfect systems related to wages and welfare as well as staff training and promotion, harmonious labor relations can be created, the cohesion in the whole enterprise will be strengthened and therefore, their competitiveness at the international market will be improved.

(3) Putting more importance on private enterprises' economic growth quality and improving their sense of effective

resource utility and environmental protection. In China, economic growth quality is more important than the growth itself, which is reflected in decreasing resource consumption. Actually, private enterprises have consumed relatively more resources and produced more pollution in China. Accordingly, it is quite essential for them to convert their “high consumption and low production” extensive growth pattern, rely on technological reform to reduce resource consumption and pollution, develop their recycling technology to construct circular economy in order to protect limited resources and ecological environment as well as to promote the sustainable development of economy and society.

(4) Establishing right undertaking sense and trying to fulfilling employment demands. After earning great wealth through long-term hardship, private entrepreneurs are expected to establish right sense of wealth and undertaking to provide more jobs for the whole society through investment, production expansion especially by developing some labor-intensive industries and the tertiary industry. This will help to shorten the wealth disparity in China and relieve the severe employment pressure of the whole society.

(5) Keeping an eye on charity and making contribution for harmonious society. With private enterprises as one part of the modern society, its harmonious development will, of course, play a very important role in the constant development of these enterprises. In the aspect of morality, private enterprises should pay more attention to charity activities and take their responsibilities for public interests, especially those disadvantaged groups. They can include donation in their corporate strategies and standardize their donation plans, operation systems and encouragement measures. In this way, the relations among different classes of the whole society will be improved and therefore a better environment will be created for these enterprises to develop themselves. What’s more important, good effects can be achieved in the development of China’s economy and the harmony and stability of the whole society.

#### References

Ma, Weihua. (2005). *Entrepreneurs’ Mission in the Construction of Harmonious Society*. [Online] <http://www.people.com.cn/4.11>.

Li, Liqing. Li, Yanling. (2005). *A Research on Corporate Social Responsibility*. China People’s Press. 8.

Li, Youhuan. (2004). *SA8000 and the Construction of Corporate Social Responsibility in China*. China Economy Press. 9.

Lu, Daifu. (2002). *An Economic and Legal Analysis on Corporate Social Responsibility*. China Law Press. 10.



## Problems and Countermeasures in the Construction of China's Entrepreneur Team

Huiyuan Mao

School of Business Administration, Northeastern University, Shenyang 110004, China

Shenyang University, Shenyang 110004, China

Tel: 86-24-2389-4862 E-mail: maohuiyuan2004@126.com

Xinliang Zhao

School of Business Administration, Northeastern University, Shenyang 110004, China

*This paper is a part of the project "Leading Cadres and Enterprise Talents' Quality Evaluation Mechanism Research and System Development" (2005401012) funded by the Department of Science & Technology of Liaoning.*

### Abstract

Entrepreneur is the engine of an enterprise's sustainable development. To strengthen the construction of entrepreneur team is a must for the construction and perfection of modern enterprise system, and the realization of stable and fast economic development. By defining the connotation of entrepreneur, this paper analyzes the present construction of entrepreneur team in China, puts forward the problems in the construction, and advances relevant countermeasures.

**Keywords:** China, Entrepreneur, Entrepreneur team, Countermeasures

Entrepreneur, as the excellent talent in business management team, is a kind of scarce resource with high human capital values, exerting extremely important effects on the economic and social development. To strengthen the construction of entrepreneur team is a must for the construction and perfection of modern enterprise system, and the realization of stable and fast economic development. It is another important subject for Chinese enterprises after the property right reform. This paper firstly defines the connotation of entrepreneur, then advances relevant countermeasures for solving the problems in the construction of entrepreneur team in China.

### 1. The dispute over the connotation of entrepreneur

To define the connotation of entrepreneur and the standards is the base for the study of entrepreneur. In the theoretical field, the definition of entrepreneur has not been established clearly. Here, we present several typical definitions.

The word "entrepreneur" appeared firstly in France in early 16th century. Originally, this word means adventurer, referring to people who guide armies in military expeditions. They must shoulder risks. The man who firstly defined "entrepreneur" was a French writer Belliard in middle 18th century. He defines it as "the people who purchase labors and materials at different prices and sell products according to contracts". Cantanon regards people who are engaged in economic activities as entrepreneurs. And he thinks that the function of an entrepreneur is to shoulder risks. In Knight's opinion, the entrepreneur determines what to do and how to do under uncertain conditions. Schumpeter thinks that entrepreneurs are typical enterprise business managers who reengineer the combination of product, production way, market choice, resource supply and organizational structure and make innovative decisions. Kirzner takes entrepreneurs as brokers who can not only identify chances but also master chances and create profits. In other words, the difference between an entrepreneur and a common people is the "savvy" and the "special knowledge". Casson thinks that entrepreneurs are good at allocating the scarce resources and making wise decisions.

Domestic scholars also hold different opinions toward the connotation of entrepreneur. In Weiyang Zhang's opinion, entrepreneurs are usually also capitalists. Only when a capital owner possesses the priority of being an entrepreneur, can it ensure talented people hold the entrepreneur position. Because the business talent is hard to be observed directly, people's personal property can prove their business talents in a sense. As a rich wants to be an entrepreneur, he must be a talented people. Yunshi Mao thinks that entrepreneurs must be the investors or the founders of enterprises. They should have the right of control over enterprises. In Cheng Wang's opinion, an entrepreneur should hold these fundamental capabilities: the capability of identifying markets for products or services, the capability of knowing and manipulating the production factor market, the capability of building up personal credit and persuading others to provide financial credit, and the capability of identifying different risks and working as usual under the high-risk

pressures. The function of entrepreneurs is to found enterprises. Wanding Zhang and Yuan Li think that entrepreneurs possess more excellent capabilities than common managers merely in one or several aspects. This paper selects the wide definition of entrepreneur, defining the entrepreneur from the angle of the station. In other words, all people who are top executives, stay in the business decision management level, master the right of business decision, and shoulder enterprise risks can be regarded as entrepreneurs.

## 2. The present conditions of the entrepreneur team in China

### 2.1 The education structure

Researches show that the educational qualities of Chinese entrepreneurs have been improved greatly in recent years. For example, in 1993, entrepreneurs who have been educated in junior college or above accounted for 69.2 percent of all entrepreneurs. But in 1995, 2000, and 2006, the percentage reached 79.6%, 84.7%, and 79.8% respectively. In 1993, none of entrepreneurs got the master degree in general. But in 1995, 2000, and 2006, percentages of entrepreneurs who have got the master degree reached 1.7%, 9.9%, and 17.6% respectively. Especially in 2006, 1.5% of entrepreneurs have got the doctor degree. Details are displayed in table 1.

Table 1. The educational conditions of Chinese entrepreneurs (%).

Educational level	1993	1995	2000	2006
High school, secondary school, and lower	30.8	20.4	15.3	20.3
Junior college	35.3	37.5	40.1	35.6
College	33.9	40.4	34.7	26.6
Undergraduate	0	1.7	9.9	17.6

Resource: Chinese Entrepreneur Survey System. (1995). Trend of Chinese entrepreneurs' occupational mobility and professionalism at present. Management World. No.3; Chinese Entrepreneur Survey System. (2000). Review of Economic Research. No.76; Chinese Entrepreneur Survey System. (2007). The Social Responsibility in Entrepreneurs' Eyes --- Chinese Entrepreneurs' Growth and Development Report 2007. Beijing: China Machine Press. July.

### 2.2 The age structure

In recent years, the average age of Chinese entrepreneurs tends to be younger. According to a survey by Chinese Entrepreneur Survey System in 1995, 92% of entrepreneurs are more than 40 years old, 56.3 more than 50 years old, and only 8% less than 40 years old. In 2000, the survey shows that 15.2% of entrepreneurs are more than 56 years old, 40% or so less than 45 years old, among with 5.6% less than 35 years old. Considering different age groups, 47.3% of entrepreneurs belong to the age group between 46 years old and 55 years old. In 2006, the survey shows that 25.5% of entrepreneurs are more than 56 years old, and 32.9% less than 45 years old. Obviously, 41.6% of entrepreneurs belong to the age group between 46 years old and 55 years old. In 2006, the average age of entrepreneurs is 48.9 years old, less 0.2 years than that in 2005.

### 2.3 The capability quality

Along with the progress of state-owned enterprise reform, Chinese entrepreneurs' capability quality has been improved gradually in market competition. According to a survey by Chinese Entrepreneur Survey System in 2002, Chinese entrepreneurs take the decision capability (61.7%), organizational coordination capability (61.6%), and the innovation capability (33%) as their strongest capabilities. It proves that entrepreneurs have full confidence in grasping market opportunities and coordinating internal operations. In contrast, they regard the social relationship capability (61.2%), the marketing capability (32.4%), and the expression capability (31.4%) as the weakest capabilities. This result has close connections with Chinese entrepreneurs' educational structure and the business environment. The "weakest" capabilities in entrepreneurs' eyes connect closely with enterprises' external exploration and market expansion, and the "strongest" capabilities more closely with enterprises' internal management. It indicates that in the capability quality aspect Chinese entrepreneurs are good at internal management instead of external exploration. However, in early 2007, a "Chinese entrepreneur quality model" report has been issued, which takes entrepreneurs who are excellent in certain industries and in charge of enterprises with assets valued more than 10 billion RMB as objects. For the first time, Chinese entrepreneurs are put in a global capability quality platform to be studied. The results indicate four aspects deserve more worries: Chinese entrepreneurs do not pay sufficient attention to organizational capability, financial safety, talents cultivation and conservation; Chinese entrepreneurs do not possess strong innovation capability in local market, especially amounts of markets with low-income people; the top-executive teams in Chinese enterprises can not cooperate properly and entrepreneurs do not understand their roles in the implementation of strategy; Chinese entrepreneurs are not good at widely collecting and analyzing information.

### *2.4 The income conditions*

According to the Law of Enterprise, we should perfect the state-owned entrepreneurs' performance evaluation system gradually, realizing the wage-oriented salary structure. Connect entrepreneurs' salaries with their business performances, operation fruits, and enterprises' economic effects closely and implement the annual salary system. The annual salaries of Chinese entrepreneurs tend to rise in general. The percentage of entrepreneurs who gain annual incomes more than 10 thousand Yuan changes significantly in recent years. From 1980 to 1984, the percentage is merely 8.7%, from 1985 to 1993, it is 23.4%, and from 1994 to 1999, the number reaches 59.5%. According to a survey by Chinese Entrepreneur Survey System, entrepreneurs who gain annual incomes more than 60 thousand Yuan account for 32.1% of the total in 1999. In 2000, the number reaches 80.2%. Recently, the annual income of Chinese entrepreneur rises more quickly.

## **3. Problems in the construction of Chinese entrepreneur team**

### *3.1 The overall qualities need to be improved further and excellent entrepreneurs are too less.*

For a long period, most Chinese entrepreneurs have experienced the traditional planned economic system. They have been selected according to party policies. Therefore, they have been affected by the old system more or less. Plus their lower self-qualities, unreasonable knowledge structures, poor innovation consciousness and market ideas, and low business management level, and most of them emphasize on economic effects instead of improving qualities by learning, few Chinese entrepreneurs are influential in the world up to now. The quantities and scales of entrepreneurs can not meet the needs of constructing an overall well-off society.

### *3.2 The traditional and dated thinking way barriers the construction of Chinese entrepreneur team.*

The profound reasons that affect the construction of Chinese entrepreneur team are certain unfavorable elements in Chinese traditional culture, such as "officialdom standard thought", "politics of being emperors", and "philosophy of self-protection". The officialdom standard thought makes entrepreneurs operate enterprises in a political thinking mode. The politics of being emperors emphasizes on the control over underlings, what may lead to such a result that some "mediocre persons" or "flunkies" instead of talents occupy important positions in enterprises. The philosophy of self-protection makes some entrepreneurs satisfy with present conditions, leaving innovations behind.

### *3.3 The imperfect operation mechanism barriers the construction of Chinese entrepreneur team.*

In recent nearly 30 years since the reform and opening, the construction of entrepreneur team is still imperfect. The primary reason is the mechanism. Here, the operation mechanism mainly includes three aspects. The first is the inflexible personnel mechanism. Even in some reformed state-owned enterprises, the employment of entrepreneurs still adopts the "appointment system", lacking a platform for entrepreneurs competing fairly and developing their management talents. In a sense, it restrains the exertion of entrepreneurs' potentials, going against excellent entrepreneurs showing themselves. The second is the imperfect salary mechanism. The salary and premium system is not perfect. There is not a flexible and diverse distribution system that completely reflects entrepreneurs' values. The third is the imperfect supervision and constraint mechanism that focuses on external regulations and internal performances. The norms for entrepreneurs' performance evaluations and supervision constraints are still an absence.

### *3.4 The construction of entrepreneur team is lack of the professional and market base.*

At present, the entrepreneurs' professional and market construction is still at a theoretical level. The human resource mechanism that can cultivate professional entrepreneurs and allocate entrepreneurs in market does not come into being. Because of the lack of a free circulation mechanism for entrepreneurs in the personnel market, entrepreneurs, as important human resources, can not be shared and allocated reasonably. If the entrepreneur resource can not realize the optimal allocation in market, other resources' optimal allocation becomes meaningless. It is impossible to realize a reasonable adjustment of product structure, industrial structure, and enterprise organizational structure, not mention the construction of high-quality entrepreneur team.

### *3.5 The imperfect education and training system for entrepreneurs*

The education and training system for Chinese entrepreneurs is far from perfection. Investment in training is extremely insufficient. On one hand, the teaching staff and other teaching conditions for management education and training in China are in short. On the other hand, the education and training market is in a mess. All kinds agencies, no matter they are qualified or not, are engaged in education and training. Even more than 100 MBA programs are advertised in one city. In Chinese enterprises, the internal investment in human resources is quite insufficient. In more than half enterprises, the education expenses are no more than 1% of the total sales. Most enterprises invest little in education and training. Most entrepreneurs have never received modern business management training.

### *3.6 The merciless social environment*

China is lack of an understanding social environment in which entrepreneurs can be treated kindly. The society can not understand entrepreneurs' innovations and tolerate their mistakes, what constrain entrepreneurs' spirits of exploration

and innovation. The media do not pay attention to news of entrepreneurs for the lack of necessary respect, care, and support for entrepreneurs. There is not a social environment that provides with relevant social and political positions for entrepreneurs. This merciless social environment brings about more pressures on entrepreneurs' work, which may hurt their health, blocking the construction of Chinese entrepreneur team.

#### **4. Tactics for quickening the construction of entrepreneur team**

The construction of entrepreneur team is a systematic project. At present, in order to cultivating a batch of professional, modern, and international entrepreneur team quickly, we should adopt these tactics as follow.

##### *4.1 Establish a reasonable enterprise selection and evaluation mechanism*

The establishment of enterprise selection mechanism is a more profound and complex problem than the property system. It concerns interests of many parts. At present, in China's selection mechanism the appointment still accounts for a relatively larger proportion. In order to speed up the state-owned enterprise reform, we must construct a scientific and normative enterprise management system that is right for the market economy. Perfect the corporate governance structure further. Build up an enterprise selection mechanism that emphasizes on market allocation, preferred selection, and approval of investors. Change the situation in which the state government appoints entrepreneurs or non-market elements determine the selection of entrepreneurs. Make "official entrepreneurs" be professional and market. We need to explore a new enterprise selection and evaluation mechanism that includes principles of "party controls cadre" and "market selection" and satisfies the requirements for market economic development. Concerning the selection standards, we should insist on the principle of classes and levels and establish specific quantitative standards according to enterprises' sales income, increment range, taxes, and other main indexes. Under the state's macro control, construct an environment in which entrepreneurs and enterprises can realize the free and mutual choice.

##### *4.2 Construct a professional and market entrepreneur team*

The professional and market construction of entrepreneur team is an effect way at present. The concept of professional entrepreneur has three meanings. Firstly, for the society, professionalism reflects the social division. Secondly, for entrepreneurs, they take the foundation and development of enterprises as their lifelong causes and pursue greater successes. Thirdly, distinguish professional entrepreneurs from common entrepreneurs. Professionalism is to make the occupation of entrepreneurs more professional, acceptable, and legal. It makes entrepreneurs regard business management as their professions for life. The professional construction of entrepreneur team can break up the "official standard" system, realizing the transition from enterprise management officers to entrepreneurs as soon as possible.

In order to make Chinese entrepreneur team grow steadily, properly, and quickly, we must build up an entrepreneur market. Market is the soil for professional entrepreneurs. Therefore, a competitive market is the key. Introduce a competition mechanism and change the former appointment system. On one hand, make up a set of standards for entrepreneurs' primary business knowledge, comprehensive capability and quality level, and professional moral level, by which investors can select the right entrepreneurs in market. On the other hand, empower investors with right of floor and decision-making. Use talent competition and business performance evaluation to identify and select more innovative and excellent entrepreneurs.

##### *4.3 Establish a scientific incentive mechanism*

Most entrepreneurs agree that the most effective incentive element is "high salary connected with performance" and the most acceptable salary system is "annual salary system". To set up a scientific salary incentive mechanism is an important aspect for the construction of entrepreneur team. Build up an income allocation system that benefits the growth of entrepreneurs. Constitute a multiple entrepreneur salary system and implement the wages-focused material incentive system. Connect entrepreneurs' salary structures with their business performances, business successes, and enterprises' economic effects closely and apply the annual salary system. In addition, a systematic spiritual incentive system is also necessary. Realize entrepreneurs' values as talent capitals. Improve entrepreneurs' statuses and enhance their rights in enterprises' business activities. Meanwhile, exert the effects of entrepreneurs' fame mechanism. Use the values and ideas of enterprise culture to motivate entrepreneurs' behaviors.

##### *4.4 Establish a supervision and constraint mechanism that focuses on internal performance evaluation and external regulations*

An effective supervision and constraint mechanism is based on external constraints of regulations, according to entrepreneurs' business performances. First of all, build up a scientific and reasonable evaluation system, including the scientific and reasonable evaluation index system and the evaluation organizational system. This evaluation system will be helpful for supervising entrepreneurs' business management process. Secondly, exert effects of market and laws and enhance the external constraints to entrepreneurs. In the product market, form a mechanism that uses enterprises' profits and market shares to evaluate entrepreneurs' business performances and business capabilities. In the capital market, form a business performance and capability evaluation mechanism. Finally, strengthen the legal constraints on

entrepreneurs by perfecting the Law of Enterprise and the Law of Securities.

#### 4.5 Construct and perfect the modern management training and education mechanism

Entrepreneurs are valuable and scarce resources for enterprises. We should emphasize on management training and improve entrepreneurs' integrated qualities step by step, including their theoretical levels, comprehensive capabilities, and moral qualities. The improvement of entrepreneurs' integrated qualities is an important part of the construction of entrepreneur team. Education and training serve as the important way for the improvement of integrated qualities. In order to improve the overall qualities of entrepreneur team, China needs to perfect the present education and training system for entrepreneur team from several aspects. In specific, develop the EMBA education that can provide with systematic education for entrepreneurs and sorts of short-term trainings that satisfy entrepreneurs' needs rightly, such as Harvard's MIP program. Besides, regulate the education and training market and get rid of unqualified training agencies. What's more, from a strategic angle, the state should cultivate a group of backup talents, asking them to join in training or advanced studies by possible ways.

#### 4.6 Cultivate an easy social environment

In order to drive the construction of entrepreneur team, we should cultivate such a social environment that encourages, supports, and helps entrepreneurs to achieve successes. People should really care about, cherish, understand, and trust entrepreneurs, with more understandings and tolerances and less complaints and comments. Cultivate a favorable work environment, a harmonious interpersonal environment, a comfortable living environment, and an understanding public environment, which can make entrepreneurs relate their careers with the social ideas and social responsibilities organically. By this way, entrepreneurs will enjoy a sense of satisfaction for realizing self values, a sense of achievement for contributing a lot to the society, and a sense of fame for being accepted and respected by the society.

Enterprises' growth and development depend on excellent and high-quality entrepreneurs. At present, the real "bottleneck" that restricts the economic development in China is the lack of entrepreneurs who know business management clearly and possess spirits of innovation. Only by quickening the construction of entrepreneur team, can we realize the healthy, harmonious, and sustainable development of state-owned enterprises.

#### References

- Chu, Zhigao. (2007). Several thoughts on the present construction of entrepreneur team in China. *Theory Journal*. No.3. p48-49.
- Li, Min. (2007). Probe into the construction of entrepreneur team in China. *Enterpriser World*. No.6. p155-156.
- Li, Yan. (2006). The entrepreneur team's present situations and improvement measures. *Management Research*. No.11. p30-31.
- Wang, Haiying. (2005). The defects of the social mechanism for the construction of entrepreneur team and the countermeasures. *Enterprise Management*. No.1. p49-50.
- Wu, Xiaobo. (2007). Four discoveries in Chinese enterprisers. *Sino-Foreign Management*. No.9. p24.



## Determinants of Purchasing Imported Products in a Regular Basis: Development of a Regression Model

Jashim Uddin (Senior Lecturer)

Department of Business Administration, East West University, 43, Mohakhali C/A, Dhaka-1212, Bangladesh

Tel: 88-02-9882308/274 E-mail: juddin@ewubd.edu

Shehely Parvin (Lecturer)

Department of Marketing, Faculty of Business Studies, University of Dhaka, Dhaka-1000, Bangladesh

Tel: 88-02-9661920/7986 E-mail: shehely\_58@yahoo.com

Md. Lutfur Rahman (Senior Lecturer)

Department of Business Administration, East West University, 43, Mohakhali C/A, Dhaka-1212, Bangladesh

Tel: 88-02-9882308/277 E-mail: lutfur@ewubd.edu

### Abstract

Bangladesh, an emerging economy, has substantial dependence on and predilection for foreign products. We made an effort to delve into the factors influencing consumer purchase decision of imported products, considering some regular use consumer shopping products. We have employed multiple regression analysis as the statistical tool. Regression model of our study demonstrated statistical significance and appeared competent to explain 76% of the total variance in the dependent variable. The determinants posed positive influence are brand preference, COO bias, trust in retail store, uninterrupted availability, fewer local alternatives, prestige symbol in reference group; while price and utility imbalance played negative influence.

**Keywords:** Imported products, Brand preference, COO, Regression model, Multicollinearity

### 1. Introduction

Globalization, as a driving force, increases global competition enormously in recent times. Foreign products and brands competing with that of local is a customary event of this age. People, with more options, are going through more critical judgmental process to make purchase decisions. Both Developing and developed countries' citizens are subject to this judgmental process. Every country may have diverse set of judgmental biases in this regard, which mostly abet marketers to make prudent decisions.

In this study, we made an effort to identify the biases of Bangladeshi consumers in purchasing foreign/imported products. We have considered some frequently used consumer shopping products, as shampoo, petroleum jelly, body lotion, and beauty soap. These products are inconspicuous in nature, as the use of them cannot be exposed to public. Additionally, purchase decisions of these products, when made in a regular basis, can be based on brand preferences, dermatological suitability, availability, variety, price, 'made in' labels etc. It will be worthy to mention that some local alternatives are also available for these consumer shopping products, which will better justify the rationale for purchasing imported products.

### 2. Literature Review

Most of the researches in this area of international marketing encompassed developed countries and concentrated to divergence in consumer preferences for country-of-origin (COO), but a few (Wong and Zhou, 2005; Okechuku and Onyemah, 1999) incorporated impetus for purchasing foreign products/brands in emerging economies. Bangladeshi consumers' perception of quality about imported products was measured, but it was according to COO (Kaynak, Kucukemiroglu, Hyder; 2000). To the best of our knowledge, there was no previous effort in Bangladesh to investigate the determinants for purchasing foreign products, which bestow us the reason to explore.

COO as an effect came into being after the seminal study of Schooler (1965). Until then, researches on country of origin (COO) influences and implications became extensive. Origin preferences may be product dependent (Etzel and Walker,

1974; Kaynak and Cavusgil, 1983); hold positive home country bias in comparison to similar countries (Chao, 1989; Schooler, 1965); or manifest a negative home country bias when home country is less developed than alternative sources (Jaffé and Martinez, 1995; Ettenson, 1993; Papadopoulos, Heslop, and Beracs, 1990; Tan and Farley, 1987; Wang and Lamb, 1983; Hampton, 1977; Gaedeke, 1973; Schooler, 1971). After different dimensional spread of COO, little effort was been made to identify biases for consuming or acquiring foreign made products across different product categories (Steenkamp, Batra, and Alden 2002). In a developing country like Bangladesh, consumers favor foreign brands for their association with higher prestige (Kapferer, 1997). Foreign brands hold higher prestige owing to their higher price and relative scarcity in comparison to local brands (Batra et al. 2000; Bearden and Etzel, 1982). Furthermore, purchasing foreign brands enhances consumers' self image, as being cosmopolitan, sophisticated, and modern (Friedman, 1990). The products under consideration in this study have less chance to show publicly and therefore, can have less influence from perceived prestige (Steenkamp et al. 2002). Yet, use of foreign products may provide higher reputation among reference group members. The matter of 'scarcity' requires elucidation to fortify the rationale of foreign products' availability. According to Cordell (1992), buyers may portray country impression by criteria such as price, styling, quality, or availability. Consequently, availability as a positive stimulus for country impression (Cordell, 1992) and foreign brands' relative scarcity in comparison to local brands (Batra et al. 2000; Bearden and Etzel, 1982) induce us to deem scarcity and availability as selective coverage not extensive coverage. Because unavailability of the product group in this study may result in brand shift as physiological and dermatological suitability is desirable. So, availability throughout the year with selective coverage is of the essence for frequently used products.

Perceived quality level commonly recognized as an elementary force of purchase intention (Monroe and Krishnan 1985). Quality is defined as the 'degree to which a set of inherent characteristics fulfills requirements' (ISO, 2000). Quality perception can be explained as a consumer's assessment of a brand's overall brilliance based on intrinsic (consistent performance) and extrinsic (brand name, promotional offers, packaging) cues (Kirmani and Baumgartner, 2000). So, perception of quality is associated with brand name. In another words, a brand's assessment of overall excellence depends on satisfaction about internal quality standards resulting from consumption experience. Brand name, acknowledged widely as a crucial indicator of quality (Rao and Monroe, 1989). Moreover, famous brand names reduce the effect of production origin because of consumers' brand loyalty and maker's implied warranty (Cordell, 1992). At the same time, product quality image is correlated with economic level of producer country (Alba and Hutchinson, 1987). Most of the famous brand names in this world are also originated from developed nations. As a corollary of globalization, products country of origin (COO) can be different from the brand's originating country (Häubl 1996). Such products can be referred as bi-national or hybrid products (Chao, 1993; Ettenson and Gaeth, 1991). Thus, not only the brand name and its origin but also the COO for production shapes up quality expectations of consumers in case of foreign products. In this study, the term foreign product or imported product is indicating that consumers know the COO. Apparently, Bangladeshi consumers are not looking to 'Made in' levels but the identification of imported/foreign products can be made as locally produced brands are generally familiar to consumers. Extensive availability of a particular beauty soap/petroleum jelly/shampoo/body lotion also is an indicator of locally produced product. So, purchasing a foreign product does not always mean that consumers know the COO. Surely, there are chances of misidentification, mostly when a previously imported brand starts local production. In this study, COO preference is considered in the sense that any imported product is preferred by a consumer for particular country of origin(s) or not.

Perceived value can be termed as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given" (Zeithaml, 1988). Value, rationally indicating to the relationship between utility received and price (and energy) sacrificed. High perceived value could engender repeat purchase and brand loyalty (Parasuraman and Grewal, 2000). In this study, we will investigate the consistency between utility received and price paid, as price is more objective to human judgment. So, judging the perceived value by consumers can turn out the extent of resemblance between price and realized utility.

People have an urge availing reference group membership through the use of particular brand. Attaining a group membership by using a brand is more likely for publicly consumed products rather than inconspicuous products (Bearden and Etzel, 1982). Mehta, Lalwani and Ping (2001) found higher reference group influence for publicly consumed services than privately consumed services. Recognizing this notion from literature, we want to inspect the significance of the social payoff for using foreign products, in this study the products are inconspicuous in nature.

As we have noted earlier that developing countries prefer foreign products, especially from developed countries, than domestic products. Local manufacturers with trivial corporate identity, use foreign names as COO by relinquishing their identity because of consumers' inclination to foreign products (Okechuku and Onyemah, 1999). Bangladesh also holds similarity in this regard. Therefore, reliability on retail outlet for genuine foreign products is desirable by consumers.

At present in Bangladesh, a few number of local corporates gained acceptance for their product quality and relatively low price offers than foreign products. Moreover, investment in production facilities by MNEs also positively

contributed the increment of local products' acceptance. Consequently, increased availability of locally produced alternatives can be an intimidation to the sales volume of foreign manufactured products and can breed greater prospect to consumers for evaluating local and foreign products. Sometimes, local importing agent can generate trust to the consumers because of local agent's trustworthiness in the domestic market; i.e. 'Heinz' brand of sauce is imported in Bangladesh by Transcom Group, a locally renowned business enterprise. So, dependability on the local importing agent can generate preference to foreign products. Though, from general observation we have seen that very less people are looking for this type of information while making purchase decisions.

### 3. Objectives of the Study

Bangladeshi consumers, holding a favorable image to foreign products, may have several considerations for purchasing foreign made products. The study is aimed at achieving following outcomes:

Identifying multiple variables that lead to purchase and consumption of foreign products in a regular basis.

Revealing the significance of the explanatory variables.

Developing a model to understand the strength of relationship between the dependent variable and independent variables.

Ascertaining the level of influence by each explanatory variable on dependent variable.

### 4. Methodology

The study used both primary and secondary information. Theoretical part of the article greatly used secondary sources such as review of scholarly journals, whereas the quantitative findings and interpretations are on the basis of primary data.

The steps in sampling design process were as follows:

*Target population:* Our study focused the individuals as sampling elements, who make purchase decisions and have their own income, as dependents will be less competent to judge price-utility consistencies, brand name and COO implications, and overall biases for purchase. Our sampling unit became commercial offices, where all employees are earning members and most possibly make purchase decisions. We considered only the executive level employees because of their income level consistencies with foreign products purchase. Moreover, commercial offices can have greater array of diversified social backgrounds and therefore can generate wider viewpoints. The extent of the study was Dhaka city (major commercial areas) and time was December 2007.

*Sampling technique:* It was a consumer-focused study on those, who mostly have the capacity and tendency to purchase and consume foreign products, like shampoo, petroleum jelly, body lotion, and beauty soap etc. in a regular basis. Consequently, we have identified the major commercial areas of Dhaka city as Motijheel, Karwanbazar, Mohakhali C/A, Banani C/A. Then we have selected two areas randomly that come out as Motijheel, and Banani C/A. After that, on the basis of unique holding number, systematic sampling method applied and 290 prospective respondents identified and 85% of them found appropriate as respondents. Among the 246 respondents finally 233 were taken into account because of inconsistencies in responses.

Primary data was collected through structured questionnaire where dependent variable was 'purchase imported products in a regular basis (*regular basis*), which was measured by interval scale using five points where '5' denoted strongly agree and '1' denoted strongly disagree. Independent variables were also measured by five point interval scale as like as dependent variable. We employed multiple regression analysis, using SPSS program, to get the desired results.

### 5. Hypotheses Development

Review of related literature provided us insight to develop hypotheses for understanding the motivations to purchase foreign made products in a regular basis. We have developed the independent variables by refining the thoughts from available literature and developed the hypotheses. The hypotheses are consecutively placed in the following and the variable names are specified in parentheses after hypotheses:

*H1:* More a foreign (manufactured) brand explains dependability and quality, more likely it is to purchase foreign brands in a regular basis. (*brand name*)

*H2:* Greater the perceived preference for a country of origin (not own country), greater the likelihood to purchase foreign products in a regular basis. (*coo*)

*H3:* More the local importing agent is dependable, more will be the chance to purchase foreign products in a regular basis. (*local agent*)

*H4:* Higher the retail store is trustworthy for genuine foreign products, higher it is likely to purchase foreign products in a regular basis. (*retail store*)

*H5*: Greater the attraction toward pricing in comparison to perceived/realized utility of foreign products, greater will be the likelihood to purchase foreign products in a regular basis. (*price*)

*H6*: More the availability at the time of requirement, more it is likely to purchase foreign products in a regular basis. (*available*)

*H7*: Lesser the options available from local producers, more will be the possibility to purchase foreign products in a regular basis. (*local options*)

*H8*: Greater the foreign sourced products pay off positively in the reference group, greater the likelihood to purchase foreign products in a regular basis. (*pay off*)

*H9*: More the preference for any foreign sourced products among the consumers, more it is likely to purchase foreign products in a regular basis. (*prefer foreign*)

## 6. The Proposed Model

In the previous section we have proposed the independent variables that may influence the dependent variable ‘purchase imported products in a regular basis’. Now we are proposing linear relationship between the explanatory variables and dependent variable according to the CLRM (classical linear regression model).

$$Y(\text{regular basis}) = \alpha + \beta_1(\text{brand name}) + \beta_2(\text{coo}) + \beta_3(\text{local agent}) + \beta_4(\text{retail store}) + \beta_5(\text{price}) \\ + \beta_6(\text{available}) + \beta_7(\text{local options}) + \beta_8(\text{pay off}) + \beta_9(\text{prefer foreign}) + \varepsilon$$

Where,

$Y$  indicates the dependent variable ‘purchase imported products in a regular basis,’  $\alpha$  is the constant term,  $\beta_1, \beta_2, \dots, \beta_9$  are the coefficients of explanatory variables, and  $\varepsilon$  is the error term.

## 7. Results of Multiple Regression Analysis

We have employed various combinations of explanatory variables to get the best possible model. Moreover, combinations of explanatory variables were made to reduce the problem of multicollinearity (linear relationship between or among explanatory variables) as much as possible, as the assumptions of CLRM is that there is no multicollinearity among the regressors (explanatory variables) included in the regression model (Gujarati, 2003). We present the results of regression analysis in the Table 1. According to the Table 1 we can see that the explanatory variables can explain 76% of the total variability of the dependent variable ‘ $Y$  (regular basis)’ as the adjusted  $R^2$  of the model is 0.760.

The ANOVA table (Table 2) shows the significance of the combined effect of explanatory variables in the regression model. So, we can reject the null hypothesis ( $\beta_k = 0$ ) and accept the alternate hypothesis ( $\beta_k \neq 0$ ) at 1% level of significance.

The contribution of each explanatory variable requires individual coefficient ( $\beta$ ) values, which appear in the Table 3. Table 3 indicates the explanatory variables’ significance for the model, where it is noticeable that seven explanatory variables are included in the regression model and other two are excluded. Exclusion of two explanatory variables (*prefer foreign* and *local agent*) was done to reduce multicollinearity problems, as inclusion of them turns some variance-inflating factor (VIF) very high. The variance in the dependent variable explained by each explanatory variable is expected to be independent. As multicollinearity is essentially a sample phenomenon, the significant distinction is not between the existence and nonexistence of multicollinearity, but between its various degrees (Gujarati, 2003). So, evidence regarding the extent of multicollinearity in our regression is required.

Table 4 indicates that the multicollinearity problem in this regression analysis is not significant. As a rule of thumb, when the VIF of a variable exceeds 10 then we can consider it as a serious multicollinearity problem (Kleinbaum, Kupper, and Muller; 1988). So, we can ensure that collinearity among all the explanatory variables are acutely within considerable level. In contrast, TOL (can be used interchangeably with VIF) for two variables are .287 and .375 that can be somehow considered as close to zero (closer the TOL to zero the greater the degree of collinearity, as according to Gujarati; 2003) but the theoretical understanding of the variables and VIF statistics gesticulate us to ignore it.

## 8. Interpretations of Results

Table 1 indicating that the multiple coefficient of determination ( $R^2$ ) is 0.767 that means the explanatory variables can explain about 77% of the variation in dependent variable. According to the specification of Theil (1978), using adjusted  $R^2$  is better than using  $R^2$ , our model explained 76% of the variation in the dependent variable. From the best of our knowledge about regression, adjusted  $R^2$  of 0.76 is acceptable enough when the variables are qualitative in nature and not measurable by absolute value (ratio scale).

Table 2 explains the dependability of the model as the F statistic showed very high value and appeared significant at 1% level.

In the Table 3 we have got the significant explanatory variables. Additionally, the table provided the level of contribution by each explanatory variable to explain the dependent variable 'Y (regular basis)'. According to the unstandardized beta ( $\beta$ ) coefficient and standardized beta ( $\beta$ ) coefficient, we can arrange them according to their importance in explaining the dependent variable. The impact of 'brand name' became most important as its unstandardized beta ( $\beta$ ) coefficient and standardized beta ( $\beta$ ) coefficient are 0.574 and 0.628 respectively. The next important explanatory variable is 'available', having unstandardized beta ( $\beta$ ) coefficient of 0.266 and standardized beta ( $\beta$ ) coefficient of 0.621. The third important contribution made by 'retail store', because its unstandardized beta ( $\beta$ ) coefficient is 0.344 and standardized beta ( $\beta$ ) coefficient is 0.550. The second and third important variables create confusion as the debate of using standardized and unstandardized coefficient is long been originated. We have given more preference on standardized coefficients as measurement is made by Likert scale (answers.com), not by absolute values (by ratio scale). Fourth important attribute came up as 'local options', without any confusion between standardized and unstandardized coefficient, which has unstandardized beta ( $\beta$ ) coefficient 0.174 and standardized beta ( $\beta$ ) coefficient 0.436. The fifth important aspect is 'COO', because of unstandardized beta ( $\beta$ ) coefficient 0.109 and standardized beta ( $\beta$ ) coefficient 0.239. Sixth important determinant is 'price', which has unstandardized beta ( $\beta$ ) coefficient of -0.109 and standardized beta ( $\beta$ ) coefficient -0.227. The seventh important variable is 'pay off', because of unstandardized beta ( $\beta$ ) coefficient 0.079 and standardized beta ( $\beta$ ) coefficient 0.170. The revised model after the statistical analysis is in the following:

$$Y (\text{regular basis}) = \alpha + \beta_1 (\text{brand name}) + \beta_2 (\text{available}) + \beta_3 (\text{retail store}) + \beta_4 (\text{local options}) \\ + \beta_5 (\text{COO}) + \beta_6 (\text{price}) + \beta_7 (\text{pay off}) + \varepsilon$$

### 9. Implications for International Marketing

Marketing products in foreign land (export) and marketing foreign products in local land (import) have extensive significance in International marketing. As it was noted earlier that, in a developing country like Bangladesh, foreign products are holding superior image compared to that of local. But, purchasing foreign products in a regular basis only for foreign source is absurd to happen, because a regular user will logically include many other considerations to make purchase decisions. The result we revealed will have substantial importance for international marketers, local producers, consultants, academicians, and consumers.

*Significance of branding:* The products in this study (shampoo, petroleum jelly, body lotion, and beauty soap) mostly purchased by the Bangladeshi consumers because of dependability and quality assurance by renowned brand names. Thus, both the exporter and importer should concentrate more on brand awareness. Brands, popular in foreign countries, can also be introduced in Bangladesh as we have got the highest strength of brand name in our regression model. To have a win-win situation for Bangladesh and exporting country, licensing and joint venture options can be prolific for reaping up high brand predilection of Bangladeshi consumers. Furthermore, the importance of brand name for the products under consideration can significantly be a focal point for local producers.

*Uninterrupted supply of desired brands:* In the literature part, we shed light on availability issues because of physiological and dermatological suitability of this product group. According to the result of regression model, availability all around the year became very desirable by the consumers. Certainly, the availability does mean uninterrupted supply of desired brands over the time period through selective coverage not extensive coverage. Conversely, disruption in supply flow will logically create disarray in the mind of consumers for a particular product/brand. So, the importers should more focus on efficiency in supply chain. In addition to that, local producers can capitalize on foreign products' supply disruption mostly when a local brand is a close competitor of a foreign brand.

*Magnitude of genuine foreign products:* Retail store, as the ultimate point of sales for the consumers, need to gain trust as source of genuine foreign products. As the preference for foreign brand names are very high in Bangladesh (brand name importance also proved by our regression), the availability of counterfeit foreign products/brands is a common scene. So, marketers of foreign products can jointly conduct consumer survey to evaluate retail outlets' trustworthiness for genuine foreign products.

*Consideration to local options:* Preference for foreign products can be a generalized view for Bangladeshi consumers; but in case of purchase decisions they consider variety/options from local producers, which is understandable from our regression result. The user of foreign brands logically will ask for comparable options from local producers and comparable options from local producers are actually less available. So, there is still enough room for new competitors, and improvement by the local producers to attract consumers and more should be done to increase local products' impression.

*Less weight on COO:* Consumers in our country mostly purchase foreign products according to brand preference. Knowing the generalized information that the brand is a foreign brand, Bangladeshi consumers purchase it without noticing the actual COO or Country of production (COP). Contribution of COO preference (.109 and .239) in our regression model also explains that truth. So, the marketers are taking the advantage of importing renowned brands

produced in low cost countries (Marks & Spencer a brand name of England, producing in Poland). Conversely, marketers can promote the COO as a competitive advantage when products are imported from countries with superior image of quality (as identified by Kaynak, Kucukemiroglu, Hyder; 2000. from Bangladeshi samples). Moreover, consumers of Bangladesh get the rationale to be aware of COO on the basis of our study findings.

*Inconsistency between price and utility:* Price, obviously an important factor behind every purchase decisions, and as a relative term it indicate some conclusive result when matches with realized/perceived utility. The slope coefficient (-0.103 and -0.227) shows, price in comparison to utility have a negative influence on purchasing foreign products in regular basis. In other words, consumers are not satisfied with price and utility relationship, which ultimately brings up reduction in purchase. The negative influence of price in comparison to utility may be a result of importing renowned brands from countries with low quality impression. Though, multinational companies (MNCs) should not make such adjustments but may be forced to do for attractive market size. The negative influence of price in comparison to utility also generates prospect for local producers to increase market share by incremental product improvements.

*Positive pay off in the reference group:* The purchase of foreign products can generate positive image to reference group, if the consumer accompany them at the point of purchase or include the event of purchase in gossiping. According to the wider view point, our product group should not provide positive image to reference group because of its inconspicuous nature, as identified by Bearden and Etzel, (1982). But, our study result reveals the significance of positive pay off in the reference group for purchasing imported products though the influence of this variable is very little (0.079 and 0.170).

The insignificance of two hypotheses ‘*prefer foreign*’ and ‘*local agent*’ spawn worthy insight for international marketing from Bangladesh perspective. Bangladeshi consumers are not interested to buy any imported products (for the products in this study) in a regular basis; rather they use their predisposition for brand name and COO. Pasting importer’s information on the product is a regulatory change in Bangladesh, and it has been done recently. Therefore, still the consumers’ may not become habituated with local agents’ information searching. It will be worthy for the local importing agents, who are well reputed locally, to initiate informative promotional campaign for letting consumer understand their association with imported products.

## 10. Limitations of the study

The study reflects the view of executives in commercial areas, who may have the capacity to purchase and make the judgment better but does not include all the users of imported products in regular basis. Executives from four major commercial areas of Dhaka city had the chance to be selected as sample, which is also a limitation.

## 11. Conclusion

The study has identified the rationale for purchasing foreign/imported products for some regular use consumer shopping products. The regular use products can have more importance in the society because of its wider influence on household expenditure pattern and retail revenue generation. As our model became statistically significant with an adjusted  $R^2$  of 0.76, we are prescribing the use of the model by the practitioners. The user of the model could explain almost three-fourth of the total variability in ‘purchasing imported products (products considered in this study) in a regular basis’. We have analyzed the implications of all the significant variables from the perspective of marketing, more specifically international marketing.

## References

- Alba, J. W., & Hutchinson, J. W. (1987). Dimension of consumer expertise. *Journal of consumer research*, 13, 411-454.
- Batra, R., Ramashwamy, V., Alden, D.L., Steenkamp, J., & Ramachander, S. (2000). Effects of brands local/ nonlocal origin on consumer attitudes in developing countries. *Journal of Consumer Psychology*, 9, 83-95.
- Bearden, W. O., & Etzel, M. J. (1982). Reference group influence on product and brand purchase decisions. *Journal of Consumer Research*, 9, 183-194.
- Chao, P. (1993). Partitioning country-of-origin effects: consumer evaluations of a hybrid product. *Journal of International Business studies*, 24, 291-306.
- Cordell, V. V. (1992). Effects of consumer preferences for foreign sourced products. *Journal of International Business Studies*, 23, 251-69.
- Ettenson, R. (1993). Brand name and country-of-origin effects in the emerging economies of Russia, Poland and Hungary. *International Marketing review*, 10, 14-36.
- Ettenson, R., & Gaeth, G. (1991). Consumers perceptions of hybrid (bi-national) products. *Journal of Consumer Marketing*, 8, 13-18.

- Etzel, M. J., & Bruce, J. W. (1974). Advertising strategy for foreign products. *Journal of Advertising Research*, 14, 41-44.
- Friedman, J. (1990). Being in the world: globalization and localization. *Theory, Culture and Society*, 7, 311-328.
- Gaedeke, R. (1973). Consumer attitude toward products 'made in' developing countries. *Journal of Retailing*, 49, 13-24.
- Gujarati, D. N. (2003). *Basic Econometrics*. (4<sup>th</sup> ed.). New York : McGraw-Hill/Irwin, (Chapter 10).
- Hampton, G. M. (1977). Perceived risk in buying products made abroad by American firms. *Baylor Business Studies*, 8, 53-64.
- Häubl, G. (1996). A cross-national investigation of the effects of country of origin and brand name on the evaluation of a new car. *International Marketing Review*, 13, 76-97.
- ISO, (2000). ISO 9000: quality management system-fundamentals and vocabulary. International Standards Organization, Geneva.
- Monroe, K. B. & Krishnan, R. (1985). The effect of price on subjective product evaluation. In J. Jacoby, & J. C. Olson (Eds.), *Perceived Quality: How Consumers View Stores and Merchandise* (pp.209-32). Lexington Books.
- Jaffe, E. D., & Carlos R. M. (1995). Mexican consumer attitudes towards domestics and foreign made products. *Journal of international Consumer Marketing*, 7, 7-27.
- Kapferer, J.N. (1977). *Strategic Brand Management*. (2<sup>nd</sup> ed.). London: Kogan Page,
- Kaynak, E., & Cavusgil, T. S. (1983). Consumer attitudes toward products of foreign origin: do they vary across product classes. *International Journal of advertising*, 2, 147-57.
- Kaynak, E., Kucukemiroglu, O., & Hyder, A. S. (2000). Consumers' country-of-origin (COO) perceptions of imported products in a homogenous less-developed country. *European Journal of Marketing*, 34, 1221-241.
- Kirman, A., & Baumgartner, H. (2000). Reference points used in quality and value judgments. *Marketing Letters*, 11, 299-310.
- Kleinbaum, D. G., Kupper, L. L., & Muller, K. E. (1988). *Applied regression analysis and other multivariate methods*. (2<sup>nd</sup> ed.). Boston: PWS-Kent,
- Mehta, S. C., Lalwani, A. K., & Ping, L. (2001). Reference group influence and perceived risk in services among working women in Singapore: a replication and extension. *Journal of International Marketing*, 14, 43-65.
- Okechuku, C., & Onyemah, V. (1999). Nigerian consumer attitudes toward foreign and domestic products. *Journal of international Business Studies*, 30, 611-622.
- Papadopoulos, N., Heslop, L. A., & Beracs, J. (1990). National stereotypes and product evaluation in a socialist country. *International Marketing review*, 7, 32-47.
- Parasuraman, A., & Grewal, D. (2000). The impact of technology on the quality value-loyalty-chain: a research agenda. *Journal of the Academy of Marketing Science*, 28, 168-174.
- Schooler, R. D. (1965). Product bias in the Central American common market. *Journal of Marketing Research*, 2, 394-97.
- Schooler, R. D. (1971). Bias phenomena attendant on the marketing of foreign goods in the U.S.A. *Journal of International Business studies*, 2, 71-80.
- Steenkamp, J., Batra, R., & Alden, D. L. (2002). How perceived brand globalness creates brand value. *Journal of International Business studies*, 34, 1-13.
- Tan, C. T., & Farley, J. U. (1987) The impact of cultural patterns on cognition and intention in Singapore. *Journal of consumer research*, 13, 540-544.
- Theil, H. (1978). *Introduction to econometrics*. N.J: Prentice Hall,
- Wang, C. K., & Lamb, C. w. Jr. (1983). The impact of selected environmental forces upon consumers' willingness to buy foreign products. *Journal of the Academy of marketing Science*, 11, 71-84.
- Wong, A., & Zhou, L. (2005). Consumers' motivations for consumption of foreign products: an empirical test in the People's Republic of China. Working Paper No. 004/2005, May, U21Global .
- Zeithaml, V. A. (1998). Consumer perception of price, quality and value: a means-end model and synthesis of evidence. *Journal of Marketing*, 52, 2-22.

Table 1. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.876	.767	.760	.2031

Table 2. ANOVA Table

Model		Sum of Squares	df	Mean Square	F Statistics	Sig.
1	Regression	30.554	7	4.365	105.796	.000
	Residual	9.283	225	0.04126		
	Total	39.837	232			

Table 3. Coefficients of Explanatory Variables

Explanatory Variables	Unstandardized coefficients		Standardized coefficients	t value	Sig.
	Beta	Std. error	Beta		
Brand name explain dependability and quality	.574	.036	.628	16.047	.000
Preference for the country of origin (COO)	.109	.020	.239	5.404	.000
Availability at the time of requirement	.266	.020	.621	13.184	.000
Retail store is trustworthy	.334	.028	.550	12.119	.000
Imported product pay off positively	.079	.017	.170	4.816	.000
Price in comparison to utility attracts you	-.103	.024	-.227	-4.320	.000
Less options (variety) available from local producers	.174	.024	.436	7.252	.000

Table 4. Collinearity Statistics

Explanatory Variables	Collinearity Statistics	
	Tolerance	VIF
Brand name explain dependability and quality	0.676	1.479
Preference for the country of origin (COO)	0.530	1.885
Availability at the time of requirement	0.466	2.145
Retail store is trustworthy	0.503	1.989
Imported product pay off positively	0.827	1.210
Price in comparison to utility attracts you	0.375	2.667
Less options (variety) available from local producers	0.287	3.485



## Experience Reference from the Financial Support Practices for Japan's Small and Medium-Sized Enterprises

Zhaozhen Fan

Institute of National Defense Economy and Management

Central University of Finance and Economics

Beijing 100081, China

E-mail: fanzhaozhen@163.com

### Abstract

The government-dominant financial system in Japan has exerted significant effects on the reconstruction of economy, the realization of industrial policy goals, and the construction of independent industrial and national economic system after the war. In Japan, the government takes much count of support for small and medium-sized enterprise financing. It establishes a small and medium-sized enterprise financial system that takes non-governmental units as principal parts and government as assistant one. Different types of financial institutions coexist in the small and medium-sized financial system and complement one another, which serves as a great support for small and medium-sized enterprise. The financial support mode for Japan's small and medium-sized enterprises and its characteristics serve as inspirations for us in the fast and healthy development of China's small and medium-sized enterprises.

**Keywords:** Financial support, Small and medium-sized enterprises, Rise, Japanese-type way

After more than sixty years of development, Japan's economy has obtained marvelous achievements, what benefits greatly from Japan's strategic choice in developing small and medium-sized enterprises. In this paper, the author tries to conclude experiences and take reference from Japan's practice in developing small and medium-sized enterprises by financial support.

### 1. Practice of Japan's financial support for small and medium-sized enterprises

(1) Unique policy-based financial system. In the financial support for small and medium-sized enterprises, Japan is one of the best. In order to drive the growth of small and medium-sized enterprises and make it in accord with government's industrial policy, in the financial policy field, the government sets up different types of state-owned and policy-based financial institutions that provide with capital support for the development of small and medium-sized enterprises. The policy-based financial institutions founded after the war meet enterprises' capital needs for technological innovations. Policy-based financial institutions invest in enterprises' technological innovations firstly, what may introduce more investments from non-governmental financial institutions. By this way, it will help to transfer amounts of social capitals to technological innovations. Japan's financing system is composed of policy-based financial institutions and credit guarantee institutions. In Japan, there are three national financial institutions for small and medium-sized enterprises that are funded and controlled directly by the state, namely Japan Finance Corp. for Small and Medium Enterprise (totally 59 in Japan, locating in prefectures at different levels), National Life Finance Corp. (totally 152 in Japan, including the heard the branches), and Japan's Central Cooperative Bank for Commerce and Industry (100 inside and 2 outside, locating in prefectures at different levels). The loans provided by the three institutions for small and medium-sized enterprises account for about 10% of Japan's total finance. Different financial institutions have different focuses in financing. Thereof, Japan Finance Corp. for Small and Medium Enterprise is chiefly to support relatively large-scale small and medium-sized enterprises. Its loans for qualified enterprises include two kinds. The first is common loan used for buying equipments, including lands, workshops, and machines. The second is special loan used for new technologies for the sake of exports.

Japan's Central Cooperative Bank for Commerce and Industry is mainly to provide capitals for member enterprises. Meanwhile, for loans' different amounts approval conditions, and interests, preferential policies are different. In general, start-up enterprises can apply to Japan's Central Cooperative Bank for Commerce and Industry to a non-guaranteed loan of 10 million Yen. If necessary, the start-up enterprises can also apply to Japan Finance Corp. for Small and Medium Enterprise. Although for different borrowers the loan rates are different, the loan rates are relatively lower, long-term, and non-profitable. Once face losses, the start-up enterprises can apply to the government for allowances. By setting up specialized policy-based financial institutions, the government effectively separates businesses of policy-based banks

and that of commercial banks, what not only ensures commercial banks' independent operation, but also support small and medium-sized enterprises in policy, exerting important effects on solving the financing problem of small and medium-sized enterprises. In order to solve problems confronted by financial institutions in providing financial services for small and medium-sized enterprises, the government founds relevant credit guarantee institutions. Firstly, all prefectures at different levels found credit guarantee associations, wholly providing guarantees for small and medium-sized enterprises' liabilities to non-governmental financial institutions. Meanwhile, the credit guarantee associations entrust commercial financial institutions or social medium agencies to examine the enterprises that apply to guarantees, and take 0.5%-1% of loans as guarantee fees. Secondly, the government founded the credit insurance treasury in 1958. On one hand, it insures the loans granted by credit insurance associations. In other words, if small and medium-sized enterprises fail to repay loans borrowed from credit guarantee associations, the associations can obtain 70%-80% of repayments as insurance money. On the other hand, the insurance treasury provides with necessary short-term and long-term capital loans for credit guarantee associations. As the final loaners, the insurance treasury ensures the steady operation of associations. Thirdly, Chamber of Commerce & Industry can provide with credit evaluations for small enterprises' financing.

(2) Government's strong economic subsidy policies. In order to help small and medium-sized enterprises obtain necessary capitals, and make them exert significant effects on national economy and certain social fields, Japan makes up economic subsidy policies, chiefly including financial subsidy policy, preferential tax policy, and preferential loan policy. According to financial subsidy policy, the government provides with subsidies directly for technological innovations in order to encourage small and medium-sized enterprises to adopt new technologies and update old ones. According to the Law of Promotion of Small and Medium-sized Enterprises, Japan offers subsidies for innovative small and medium-sized enterprises' technological research and development. In order to support small and medium-sized enterprises in developing and introducing new technologies and pushing technological exchange, the government provides with 30 billion Yen subsidies annually in average. According to preferential loan policy, the government offers low-interest loans (the interest is lower than that of commercial banks) for small and medium-sized enterprises by policy-based banks. By this way, enterprises can obtain sufficient capitals to develop new technologies, rent equipments, and advance capabilities of production machines, improving product qualities. As small and medium-sized enterprises are weak in competition, the government subsidizes them directly by offering long-term and low-interest loans. Along with the growth of small and medium-sized enterprises, the government gradually adopts indirect ways to subsidizes them, such as paying deposits, and deposit guarantee.

(3) Create direct financing channels. 99% of enterprises are small and medium-sized in Japan, which is one of characteristics of Japanese economic structure. In Japan, the indirect finance has always held a super station in its financial system after the war, forming a financial institution-centered industrial structure that chiefly offers capitals for large corporate groups. As downstream enterprises, although some small and medium-sized enterprises contribute a lot to the development of large corporate groups, they can not get rid of the short of capitals under the financial system that mainly serves large corporate groups. Therefore, the government collects necessary capitals and forms a complete set of policy-based financial system, aiming at offering loans for small and medium-sized enterprises. Firstly, set up small and medium-sized enterprise investment foster company. In 1963, Japan constituted the Law of Investment Foster Companies for Small and Medium-Sized Enterprises, aiming at enriching capitals needed in enlarging business. According to this law, investment foster companies for small and medium-sized enterprises have been founded in Tokyo, Osaka, and Nagoya, which can benefit the upgrade of industrial structure and help small and medium-sized enterprises to implement stock investment and enrich self-owned capitals, improving their international competence. Besides, the investment foster companies can provide with directions in businesses and technologies for small and medium-sized enterprises. Since the foundation, these companies have developed well and subscribed for unlisted small and medium-sized enterprises' increasing capitals in strengthening their capitals. In Tokyo, from the foundation of investment foster company for small and medium-sized enterprises to 2003, it totally invested 34 billion Yen for 825 enterprises. In addition, after small and medium-sized enterprises list in market, although these foster companies still maintain their positions as long-term investment stockholders, they are not longing for the capital return of investment. Secondly, allow and encourage small and medium-sized enterprises to issue stocks and securities in public. In 1996, the government set up a special venture fund to offer capital support for "venture enterprises" that issue bonds, encourage government financial institutions to offer venture capitals for new-developed high-tech small and medium-sized enterprises, and even directly subscribe for small and medium-sized enterprises' bonds in the name of government. To late 2001, the special venture fund in Japan has exceeded 1300 billion Yen and supported more than 17 thousand venture enterprises totally. Thirdly, set up the second board market out of the main board market. In Japan, the second board market includes over the counter (OTC) and exchange, offering transferring and financing services for small and medium-sized enterprises. Conditions for listing in the second board market are very loose, which makes enterprises that are temporarily to the bad but have development potentials can gain chances of listing in market. Finally, other financing ways, for example, the equipment-renting operations based on the Law of Promoting the Modernization of

Small and Medium-Sized Enterprises can help small and medium-sized enterprises update equipments timely and improve technologies.

(4) The supportive and security legal system for small and medium-sized enterprises. Japan is famous for its name of “Kingdom of Enterprises”. Small and medium-sized enterprises in Japan are the “Kingdom of Kingdom”. Japan’s small and medium-sized enterprises hold irreplaceable positions in economic development and social stability. Therefore, Japan has always emphasized on supporting small and medium-sized enterprises. The government has determined to construct a production and management system that takes large enterprises and groups as the center and backbone, amounts of small and medium-sized enterprises as clusters and bases. This development idea has been completely embodied in Japan’s legislation, policies, and government administration. In Japan, a new organization structure comes into being, which is dominated by large enterprises and pursues common development of small and medium-sized enterprises. From the legal aspect, it strengthens the protection and support for small and medium-sized enterprises. Japan constitutes an integrated and systematic set of laws, regulations, and policies that support small and medium-sized enterprise development. Centering on the Small and Medium-Sized Enterprise Basic Law, six series of laws come into being, five laws in promoting small and medium-sized enterprise innovations and creations, fifteen laws in strengthening small and medium-sized enterprise business bases, seven laws in adapting to economic and social changes, seven laws in capitals supply and enriching free capitals, two laws in supporting small enterprise development, one law in small and medium-sized enterprise administrative organization.

## **2. China’s choice of the finance supportive mode for small and medium-sized enterprises**

(1) The government should promote the legislation process, providing with powerful guarantee for small and medium-sized enterprise development. Market economy is legalized economy. Favorable legal environment is more important than preferential policies. Japan, with a reputation of “the super country in solving problems of small and medium-sized enterprises”, attaches great importance to small and medium-sized enterprises. After the World War II, based on the Small and Medium-Sized Enterprise Basic Law, the National Life Finance Corp. Law, and the Law of Finance Corp. for Small and Medium Enterprise, Japan constructs an organic legal system. Considering changes of national industrial policies and small and medium-sized enterprises, the Japanese government revises the basic law and makes up equipped laws, what proves to be an effective way to solve small and medium-sized enterprise financial problems and promote its sustainable and stable development. Therefore, China should pay more attentions on the financing problems of small and medium-sized enterprises. By constituting perfect and integrated laws and regulations, the government can establish the basic guidelines, policies, development directions, and management principles for the development of small and medium-sized enterprises. Besides, by regulating the small and medium-sized enterprises’ systems, organizational frames, state-supported scope, cooperation, fair competitive environment, interest protection, and modernization process, the government can further support small and medium-sized enterprises to survival and develop.

(2) Create a Chinese finance supportive frame. The difficulties of small and medium-sized enterprises in applying for loans root in two aspects. The first is the guarantee issue. The second is government excessive support for state-owned enterprises in applying loans. Both need to be solved by government. It is necessary for us to reexamine former policies and measures from the strategy and system angle and adjust present financial structure and system. According to the scientific development view, with the precondition of completely exerting the basic effects of market mechanism, by means of deepening financial reform, construct a policy-dominant institutional financial system that is in accord with the market mechanism to the most degree and can make up the “malfunction of market”. On one hand, found independent policy-based financial institutions that serve small and medium-sized enterprises. For the point of enhancing the financial support for small and medium-sized enterprises, it is necessary to found special policy-based banks, which is irreplaceable by other financial institutions. This is the most direct way to solve the financing problems of small and medium-sized enterprises and the common method adopted by developed countries or regions. On the other hand, make present state- owned banks to offer policy-based financing services for small and medium-sized enterprises. Although in policy-based financing aspect the investment of government fiscal revenue is indispensable, we should lighten the burden of the government as much as possible. The government is merely a catalytic converter. In Japan, the government-dominant financing way for small and medium-sized enterprises promotes their investments in equipments. It is well-known that Japan’s manufacture possesses super competitive advantages. One of important factors is the small and medium-sized enterprises in Japan’s manufacture field, which possess lots of advanced equipments and achieve higher productivity. From 60s to 80s in 20th century, Japan’s manufacture industry experienced several times of structural transformations and each achieved a great success, what make Japan sustain its advantages in the manufacture field. Apparently, the government’s policy support for small and medium-sized enterprises in financing aspect contributes a lot to the success. In China, we can also set up similar government institutions specialized in solving the financing problems of small and medium-sized enterprises, providing with government support for the development of small and medium-sized enterprise. Here we should notice one point. All investing and financing activities that could be accomplished by market mechanism should not be interfered by policy-based finance, which can

help to exert the effects of market finance thoroughly. In the aspect of financial costs, Japan's small and medium-sized enterprises depend too much on government capitals in financing, what causes higher pressures on government finance. As a result, Japanese government has to amend the Small and Medium-Sized Enterprise Basic Law for the first time in thirty-six years, converting the support objects in law into enterprises "vitality and diversity".

(3) The government support for small and medium-sized enterprise financing is restricted by government budget, economic system, and development mode. In Japan, government's capital support for small and medium-sized enterprises and the capital support from capital market can complement each other, which is one of Japan's successful experiences in the practice of industrial policies. In China, the government financial resources are not rich. Therefore, China should encourage the development of venture capital companies. Venture capital is the incubator for enterprise growth. In a sense, it becomes another important way to solving the financing problems of small and medium-sized enterprises, except for applying to banks for loans, and government investments. To encourage the development of venture capital companies can help to solve the financing problems of small and medium-sized enterprises. China should offer more preferential policies for the development of venture capital companies.

(4) The development of small and medium-sized enterprises needs to perfect social service system. To develop small and medium-sized enterprises not only needs support of financial policies, but also depend on the perfection of social medium service system. In Japan's service system for small and medium-sized enterprises, the public service institution displays its great influences. It serves as a bridge between the government and small and medium-sized enterprises and is also the main institution that implements small and medium-sized enterprise policies. According to Japan's Directive Law of Small and Medium-Sized Enterprises, the central government should make up a plan to instruct small and medium-sized enterprises in business management and technologies, and the local government at different levels should make up specific implementation plans accordingly. To construct a financing service system for small and medium-sized enterprises in China, we can start from four points. Firstly, governments at different level must change their control over small and medium-sized enterprises and construct a special service system that includes capital financing, credit guarantee, technological support, management consultation, information service, market exploration, and talents training. In addition, governments should offer necessary capital and policy support for the construction of the special service system. Secondly, based on local conditions, governments at different levels should encourage and support scientific research institutions, colleges, and commercial associations to provide with services for small and medium-sized enterprises. By means of technology negotiation, patents, products bidding, and personnel training, governments can offer services in technological innovations and science & technology industrialization for small and medium-sized enterprises. Thirdly, found small and medium-sized enterprise association and make it become a bridge connecting enterprises and government. The association can provide with consultation services in policies, laws, market, technologies, economy, and finance for small and medium-sized enterprises. Fourthly, further regulate mortgage appraisal, register procedure, and operation regulations, decrease expenses of these services, and release enterprises' burden.

## References

- Fan, Zhaozhen. (2008). Policy design for national defense industry's financial support. *Military Economic Research*. No.5.
- Kong, Shudong. (2007). *Experiences and Inspirations from Foreign Small and Medium-Sized Enterprise Financing*. Beijing: China Financial Publishing House.
- The Research Bureau, the People's Bank of China. & Japan International Cooperation Agency (JICA). (2005). *Report for China Small and Medium-Sized Enterprise Financial System*. Beijing: China Citic Press.
- Wu, Qiaozhen. & Liu, Niuxia. (2007). *China's Small and Medium-Sized enterprise Financing: Theory, Reference, Construction of Financing System*. Beijing: China Social Sciences Press.
- Zhang, Yuxi. (2007). *Industrial Policy's Financial Support: Mechanism, System, and Policy*. Beijing: Economic Science Press.



## Risk Occurrence Assessment of the Background Conformity Conditions of Inspection and Quarantine Based on FMEA

Yunhui Dai

School of Economics and Management, Nanjing University of Science and Technology

Nanjing 210094, China

E-mail: dyh2000@jssmail.com.cn

Yue Xue

School of Economics and Management, Nanjing University of Technology

Nanjing 210009, China

E-mail: xueyue\_cn@yahoo.com.cn

Zhijun Han

School of Economics and Management, Nanjing University of Science and Technology

Nanjing 210094, China

Wei Zhang

Beijing Entry-Exit Inspection and Quarantine Bureau, Beijing 100026, China

*This work is supported by "Key Technology Research on Entry-Exit Inspection and Quarantine Security Early-Warning and Guidance System" under the Eleventh Five-Year Plan National Key Technology R&D Program Subject No: 2006BAK10B02)*

### Abstract

In order to promote the scientific and normalized work of the inspection and quarantine, limited inspection and quarantine resources have to be used for efficient management of limitless inspection and quarantine objects, which requires the screening of the background conformity conditions of inspection and quarantine. Failure Modes and Effects Analysis (FMEA) is a methodology for potential reliability analysis and safety assessment, and has been widely applied to the protection system of accident prevention. It is of great significance to use FMEA to assess risk in the field of inspection and quarantine. This paper provides an approach for risk occurrence assessment according to actual needs of inspection and quarantine work, based on risk elements analysis in inspection and quarantine work.

**Keywords:** FMEA, Inspection and quarantine, Conformity conditions, Risk occurrence

Recent years, China's ranking of foreign trade volume in the world is rising steadily. From 2003 to 2006, China enjoyed an annual foreign trade growth of 29.8%, with export growing at 31.3%, and import 28%. In 2002, the foreign trade volume reached 620.8 billion USD. And in 2004, the volume exceeded 1 trillion USD. In 2006, the volume amounted to 1.7604 trillion USD, which increased by 2.8 times than 2002. Its ranking in the world lifted from No.5 to No.3 in 2004, and it keeps the third ranking since then. China's foreign trade proportion of the world's total volume of foreign trade has increased from 4.7% in 2002 to 7.2% in 2006. Thus China has become a true big trading nation.

The fast growth of China's foreign trade leads to the rapid growth in entry-exit inspection and quarantine demand. In order to promote the scientific and normalized work of the inspection and quarantine, to use limited inspection and quarantine resources for efficient management of limitless inspection and quarantine objects, and to ensure the safe operating of China's economy, risk analysis and screening of the background conformity conditions of inspection and quarantine are required. This paper is a part of the National Key Technology R&D Program "Research on Entry-Exit Inspection and Quarantine Security Early-Warning and Guidance System", mainly focuses on risk occurrence assessment.

## 1. Conformity Conditions of Inspection and Quarantine

Based on the principle that only the entry-exit objects in conformity with given conditions after inspection and quarantine can be released, the conformity inspection is the basic feature of entry-exit inspection and quarantine, and its corresponding given conformity conditions, inspection methods, and conformity estimation are all the essential elements in the practice of inspection and quarantine, especially the given conformity conditions (including background conformity conditions and objective conformity conditions used to conduct the inspection activities), which has a direct effect upon the conformity inspection.

The conformity conditions of entry-exit inspection and quarantine refer to all the background conformity conditions that the entry-exit objects shall be conformed to and all the objective conformity conditions set by the inspection and quarantine authorities in entry-exit commodity inspection. The conformity conditions cover catalog of compulsory inspection commodity, catalog of forbidden entry-exit objects, entry-exit permit, safety and sanitation conformity indicator, etc., they are all the necessary elements in the administration of inspection and quarantine work. The missing and ambiguity of the conformity conditions will cause the arbitrariness, unconformity in the inspection and quarantine administration; make trade transparency and predictability become worse; result in higher risk in inspection administration and trade; and even arouse suspicion of inspection and quarantine system.

Because of the position of the conformity conditions as the most important foundation in the conformity inspection activities, all the large trading countries attach great importance to construction of the conformity condition system of entry-exit inspection and quarantine. The conformity conditions of entry-exit inspection and quarantine are characterized by great amount of information, wide range of subjects, complex elements, quick updating. And according to principle of transparency of WTO, all the parties involved in entry-exit inspection and quarantine shall have the right to be informed, so as to improve the conformity and normalization in entry-exit inspection and quarantine work. Therefore, only the establishment of conformity condition database of entry-exit inspection and quarantine, screening the objective conformity through model, and providing entry-exit inspection and quarantine administration with legal, real-time, conformable, normative and latest information of objective conformity conditions can ensure the regular administration of entry-exit inspection and quarantine. At present, Australia, Canada, New Zealand and some other countries have established conformity condition database of entry-exit inspection and quarantine with a complete structure. However because of the confidentiality of the information, the structure contents are not know by the outside world.

China has been strengthening the construction of the entry and exit inspection and quarantine conformity conditions, has established the catalog of compulsory inspection commodity, and the catalog of entry restriction on hazardous substances and organisms, enacted foreign technical trading measures and national compulsory standards, which laid a good foundation for the construction of the conformity conditions. However, when compared to large scale entry and exit logistics of more than 1 trillion USD, more than 0.2 billion persons and 60 million vehicles, the present construction development of entry-exit inspection and quarantine conformity conditions is still very backward. The situation of missing, ambiguity, decentralization, confusion, and difficulty in information output are quite common, and the state-level database system of conformity conditions that the entry-exit inspection and quarantine is not formed yet. All the above factors cause the unconformity of the inspection and quarantine practices in different check points, and sometimes the authorities have to conduct inspection and quarantine work according to the given conformity conditions by traders, which may increase the risk of administrative responsibility, weaken the inspection and quarantine administrative enforcement, even make the inspection and quarantine enforcement face potential legal problems.

Therefore, the scientific and normalized work of the inspection and quarantine will be improved and the efficiency of Customs inspection and quarantine will be promoted by carrying out the research on the intelligence system of entry-exit conformity conditions conformed to the situations in China, using FMEA based on the information integration system of background conformity conditions, screening the objective conformity conditions out of background conformity conditions, and establishing the unified intelligence navigation system of the conformity inspection within the whole inspection and quarantine system.

## 2. Analysis of the risk factor of background conformity condition of inspection and quarantine.

There is no strict and uniform definition of risk, but all the risks contain the following two characteristics.

- (1) Uncertainty—Risks may occur or may not. In other words, there is no risk occurs 100%.
- (2) Loss—If the risk becomes a reality, the vicious consequence and loss will happen.

The risk management master, Robert Charette (1989), thinks that we have to define a scene for each potential loss, which describes the cause or trigger factors of the risk. He described the three-elements-group for the definition of risk: which scene will cause a loss ( $S_i$ ), the possibility of this loss ( $L_i$ ), the influence of this loss ( $X_i$ ), as follow:

$$\text{Risk} = \{(S_i, L_i, X_i) | i = 1, 2, \dots, n\}$$

The cause or trigger factors of the risk which described in the scene S is called the *risk factor*.  $S_i$  can be expressed as the function of a series of risk factors (as *rf*) and time (as *t*), as follow:

$$S_i = \{(rf_{i1}, rf_{i2}, \dots, rf_{in}, t) | i = 1L n\}$$

During inspection and quarantine, the risks mainly focus on the loss probability, the severity of the loss and its consequences. Rules on the Risk Analysis Management of Entry Animals and Animal Products which issued by AQSIQ in December 2002 made follow definition for the *risk*: Risk is the entry possibility of animal diseases, parasitic disease pathogens and toxic and harmful substances which enter the frontier with the imported animals, animal products and animal genetic material, animal-derived feed material and biological products and animal pathological material, and the harm toward the ecological environment, including agriculture, husbandry, fishery and the health of human.

Generally considered, the risk factor of background conformity condition of inspection and quarantine is the qualitative statements which cause the increase of the frequency of inspection and quarantine loss or loss degrees of factors to happen. The analysis of the risk factor of background conformity condition of inspection and quarantine is the classification work according to the risk factors which may cause risks to the research of inspection and quarantine targets. In the research of the risk of background conformity condition of inspection and quarantine, the analysis and classification of the risk factors is very important. For the specific targets of inspection and quarantine, there are many risk factors, which lead to the risks and losses of inspection and quarantine targets together. Only after have a clear analysis about the risk factors of inspection and quarantine, we can aim to the screening of background conformity condition of the inspection and quarantine targets.

In this research, the basic idea of the analysis of the risk factor of background conformity condition is analyzed according to the process which may cause the increase of the frequency or loss of inspection and quarantine.

Tier one, classifying the major categories of products. Classifying all inspection and quarantine goods into eight major categories according to the characteristics of products.

(1) packages; (2) animals (animals and animal products); (3) plant (plants and plant products); (4) food, cosmetics and raw materials; (5) light products; (6) mineral products, chemical products, metals and metal products; (7) mechanical and electrical products; (8) special items

Tier two, collecting the corresponding public risk factor according to different product categories. For example, the public risk factor of plants (plants and plant products) mainly refers to quality, toxic substances, harmful organisms, diseases, transgenic, etc.

Tier three, doing further analysis to the public risk factors mentioned above so that we can collect the quantifiable and operational indicators. Take harmful organisms as an example, in accordance with the rules and history records, the analysis way as following table (table 1).

Table 1. Analysis of the risk factor of harmful organisms

Harmful organisms	Have colonization capacity	History testing data	Frequency	High	
				medium	
				Low	
		no			
	The severity level of the limitation index	Final use, Type of trade, Trade country, Etc.	Technical standards	International standards	
				National standards	
				Industry standards	
				Enterprise Standards	
			Regulations	Yes	
				no	
Have no colonization capacity					

Table 1 analysis the factor according to the colonization capacity of the harmful organisms. If it has the colonization capacity of the harmful organisms, we make further analysis according to history testing data and extent of the limited

indicators. The history testing data is the quantitative result which mainly based on the history situation of inspection and quarantine. The severity level of the limitation index is based on the final usage, trading modes and the requirements of the trading countries to lookup the corresponding technical standards and regulative standards, and offer the catalyzing elements of risk in inspection and quarantine

### 3. The analysis of assessment cases of the risk occurrence of background conformity condition of inspection and quarantine based on FMEA.

Take soybeans which belong to the major categories of plants and plant products as an example, overall inspection and quarantine situation of soybeans in Jiangsu province in recent years as follow in table

Table 2. The General Situation of the Problems arisen in the Inspection and Quarantine

	Total import amount (batches)	Problem batches in inspection (batches)	Rating (%)	Total import amount (10thousand tons)	Problem amount in inspection (10 thousand tons)	Rating (%)
2003	133	13	9.77%	500.20	65.53	13.12%
2004	129	17	13.18%	495.69	75.96	15.32%
2005	177	42	24%	630.57	145.82	24.71%
2006	208	40	19.2%	669.35	134.2	20.1%

The inspection and quarantine situation of import soybeans are as follow:

(1) the quality and food sanitation inspection of import soybeans

a. Quality inspection

Table 3. Inspection results of imported soybeans (2004~2006)

	Item	Unqualified			Percent of unqualified	
		Lots	Weight(T)	Value(USD)	Lots(%)	Weight (%)
2004	Oil content	1	35,800	13million	0.78%	0.72%
	Content of impurity	2	82,400	28million	1.55%	1.66%
	Bulk density	7	323,000	99million	5.43%	6.52%
	Percent of damaged kernel& heat-damaged kernel	5	263,000	78million	3.88%	5.31%
	Content of protein	6	278,500	94million	4.65%	5.62%
2005	Item	Unqualified			Percent of unqualified	
		Lots	Weight(T)	Value(USD)	Lots(%)	Weight (%)
	Oil content	2	57,300	17million	1.1%	0.91%

	Content of impurity	4	164,900	46million	2%	2.62%
	Bulk density	11	413,000	117million	6.2%	6.55%
	Percent of damaged kernel& heat-damaged kernel	21	629,200	179million	11.9%	10%
	Content of protein	6	311,300	91million	4%	4.94%
2006	Item	Unqualified			Percent of unqualified	
		Lots	Weight(T)	Value(USD)	Lots(%)	Weight (%)
	Oil content	1	48,600	12.69million		0.7%
	Content of impurity	17	1,590,300	17.081million		23.8%
	Bulk density	2	73,500	20.22million		1.1%
	Percent of damaged kernel& heat-damaged kernel	22	654,700	186.96milliom		9.8%
	Content of protein	2	60,200	16.59million		0.9%

The testing items all contain different level of percent of defective. Compared with in 2004, in the year of 2005, the unqualified items still remain in the items “oil content”, “content of impurity”, “bulk density”, “percent of damaged kernel” and “percent of heat-damaged kernel”. Among these, the inconformity between the percent of damaged kernel with percent of heat-damaged kernel and the requirement of the contract increases more than before. This inconformity rate is 5% higher that in 2004. In 2006, the percent of pass of “oil content”, “content of protein”, and the “bulk density” is more higher than that of 2005 and the percent of defective is respectively 0.7%, 0.9% and 1.1%; the “percent of damaged kernel” and the “percent of heat-damaged kernel” is comparatively decreased but still remain at 9.8%; the disqualification of the “content of impurity” is the most severely, and the percent of defective increases from 2.6% of 2005 to 23.8%, 8 times than the number before.

#### b. Testing of toxic and dangerous substance

From 2003 to 2006, the items listed on the contract include phosphide, prussiate, arsenic, Hg, chrome, malathion, sumithion, aflatoxin (regular lab testing item on soybean) were tested. The result showed that the contents of all the items meet the health requirement of imported food. No toxic and harmful substance was found in the soybean.

#### c. Testing of weight

In the year of 2004, it was found that the imported soybean was in short of 21 lots with 7046.35 tons totally in Jiangsu port. And the year of 2005 witnessed the shortage of 51 lots with 15425.242 tons. Comparatively, the situation of 2005 is worse than in 2004, because the shortage of lots and weight increased 143% and 119% respectively. And in 2006, 59 lots of soybeans with 16421 tons of soybeans had been found lost.

#### d. Testing of GMO

From August of 2004, our bureau started to conduct the test for GMO. After the cargos were discharged, the samples should be sent to Jiangsu Food Testing Center by the port to do conformity test. The results of the tests during 2004 to 2006 were all in conformity with the declaration.

#### 2) Inspection of imported soybeans

Table 4. Data of epidemic organisms captured in imported soybeans

Year	Type I II III harmful organisms		General harmful organisms		In total	
	Sorts	Lots	Sorts	Lots	Sorts	Lots
2004	12	312	144	1248	156	1560
2005	12	510	204	3654	217	4162
Compare with last year	0	63%	42%	293%	39%	167%
2006	16	582	281	5538	297	6120
Compare with last year	23%	14%	52%	72%	37%	47%

From the form 4 it can be recognized that there was a great increase, in not only the types, but also in the lots, of the harmful organisms captured on the ports. The types and lots increases 39% and 167% respectively. Among these, the numbers of type I, II, III were almost the same in 2004 and 2005 while the lots increased 63% in 2005. For the general harmful organisms, the types and lots increased 42% and 293% respectively in 2005. This number increased continuously in 2006.

Failure Modes and Effects Analysis (FMEA) is a risk assessment technique for systematically identifying potential failures in a system or a process. It is widely used in the manufacturing industries in various phases of the product life cycle. In the process of an FMEA, analysts compile lists of component failure modes and try to infer the effects of those failure modes on the system. FMEA is used during the design stage, identify the weak points and key items in the system with an aim to avoid future failures so that to formulate improving measurements. As the mode is preventative rather than a correction way afterwards, it is very suitable for the screening of the background conformity condition of the inspection and quarantine. It can improve the reliability and safety of inspection and quarantine. According to the theory of FEMA, the form below is about the occurrence levels of conformity condition:

Table 5. Occurrence levels of conformity condition

Possibility of Occurrence	Occurrence rate	Levels
Very high: Almost inevitable	$\geq 1/2$	10
	1/3	9
High: Always happens	1/8	8
	1/20	7
Medium: Happens now and then	1/80	6
	1/400	5
	1/2000	4
Low: Seldom happens	1/15000	3
	1/150000	2
Very low: Almost no possibility	$\leq 1/1500000$	1

According to the analysis to the risk assessment of the background conformity condition of inspection and quarantine and historic records, we listed the form 6 as below which manifests the risk occurrence levels of imported soybeans background conformity condition. The data listed in the form is only a part of the whole, as the data is not enough. With

the establishment of the database, the basic data could be developed so that the occurrence assessment in the form will be more exact.

Table 6. Risk occurrence of the inspection and quarantine background conformity condition of imported soybeans

Background conformity condition		Imported country				Rate of the unqualified in 2005	Occurrence level	Standard
		USA (77 lots)	Brazil (64lots)	Argentina (35lots)	Paraguay (1 lot)			
Quality inspection	Percent of heat-damaged kernel	17	4	0	0	11.90%	8	Regulations and contracts of Dep.
	Content of protein	3	3	1	0	4%	7	Regulations and contracts of Dep.
	.....							
Test of toxic and harmful substance	Hg	0	0	0	0	0	3	GB 2763-2005
	.....							
GMO	35 promoters	0	0	0	0	0	3	“Inspection and quarantine management for entry-exit GMO products”
	.....							
Inspection of weeds	Johnsongrass	74	56	34	1	165/177	10	National Quality Control Action [2004]No.332
	.....							
Inspection of insects	Almond moth	0	0	1	0	1/177	6	National Quality Control Action [2004]332
	.....							
Inspection of epidemic illness	Phytophthora sojae	11	1	2	0	14/177	8	National Quality Control Action [2004]332
	.....							

In the risk occurrence levels listed as above, we always choose the highest level for sure, i. e. we follow the strict principle of doing random test.

#### 4. Conclusion

The rapid development of foreign trade has brought more requirements to the Chinese entry-exit inspection and quarantine. To make the inspection and quarantine more scientific and more regular, the management to the boundless objects should be realized by limited inspection and quarantine resources. Inspection and quarantine, in a sense, is to control the risk in the course of inspection and quarantine which depends on the analysis of the related risks. For some special inspection and quarantine objects, there always exist many reasons of risks, and they decide the risk and lose of the object together. As an important method of reliability analysis and risk control, FMEA can be used to deal with the risk control and analysis of the background conformity of the inspection and quarantine. The essay is written on the basis of clear analysis on the risk reasons of inspection and quarantine, and designs the assessment method of the risk occurrence according to the practical needs. The imported soybean case analysis indicates that this method is feasible.

#### References

Chen, Wenqin, Xu, Huiling & Cai, Zhihong. (2005). *The Use of Failure Mode And Effects Analysis and Enterprises*

*Decision-making—Take new product development as an example.* Beijing Machine Industry Press.

He, Wenjiong. *Risk management.* Dongbei Financial & Economics University Press.

Liu, Xueying & Zhang, Fangjie. (2006). Financial Risk Method Analysis On the Basis of Reasons. *Economic theory research.* (6) 30-33.

Robert N. (1989). Charette. *Software Engineering Risk Analysis and Management* Multiscience Press Inc.

Wang, Gaofeng. (2002) *The Use of FMEA In the Process Management.* Electrics Quality Press, 12(11):62-63.

Wang, Shaoyin. (2003). *Failure Mode and Effects Analysis.* Guangzhou: Zhongshan University Press.

Xi, Lifeng & Xu, Gang. (2002). The Use of FMEA In the Process Management. *Industry Engineering and Management,* 6(1): 37-39.

Zhu, Shunquan & Peng, Xiaoyan. (2006). Risk Management of Imported Commodity Inspection and Quarantine. *Research on Science and Technology Management,* 11:248-251.



## Intellectual Capital Performance of Pakistani Listed Corporate Sector

M. A. Majid Makki (Corresponding author)

Department of Commerce, the Islamia University of Bahawalpur, Pakistan

Tel: 92-42-5162633 E-mail: [abdul7896@yahoo.com.au](mailto:abdul7896@yahoo.com.au)

Suleman Aziz Lodhi

National College of Business Administration & Economics, Lahore, Pakistan

E-mail: [sulemanlodhi@yahoo.com](mailto:sulemanlodhi@yahoo.com)

Rashid Rahman

Department of Business Administration, Gomal University, D.I. Khan, Pakistan

E-mail: [drrashid.rehman@gmail.com](mailto:drrashid.rehman@gmail.com)

### Abstract

Performance of Intellectual Capital (IC) in an enterprise is becoming a critical success factor. The paper measures, evaluates and ranks the IC performance of the second largest stock exchange of Pakistan, the Lahore Stock Exchange index companies (LSE-25). It uses popular IC model, Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) developed by Ante Pulic in 1998. Six-year data of LSE-25 was obtained from audited financial reports to calculate human capital, structural capital and capital employed efficiency of companies related to different industrial sectors. Findings indicate that oil & gas, chemical and cement sectors show top performance; banking sector shows average performance; and public sector companies show least performance. The study is a pioneering attempt to measure the IC performance in Pakistan using cross sectional data.

**Keywords:** Intellectual capital efficiency, Human capital, Structural capital, Value Added Intellectual Coefficient (VAIC<sup>TM</sup>)

### 1. Introduction

The existing corporate performance measurement system is heavily inclined towards financial and physical aspects and lacks the relevant information on intellectual capital efficiency. Consequently, many companies are satisfied with their financial performance, while the reality is different, as they face declining IC efficiency. Therefore new tools are needed for measuring the performance of enterprises in addition to financial performance. An appropriate tool is to measure and rank the companies according to their IC performance. Johnson and Kaplan (1987) emphasize that IC plays very important role in overall performance of an enterprise. Bornemann (1999) explored positive correlation between intellectual potential and economic performance. According to Pulic (2000a), IC is a moving force for business success.

At macro level, the importance of IC performance is increasing as nations move towards Knowledge-Economy. Malaysian economists accept that to maintain the pace of economic development it is inevitable to transform the production-based economy to knowledge-based economy. The Knowledge Economy Master Plan of Malaysia published in 2001, consists of strategies to transform Malaysia from an input driven economy to a knowledge driven economy. The vital role of knowledge is also emphasized in World Development Report (1998) asserting that today's most technologically advanced economies are truly knowledge based. Malaysian researchers, Naquiuddin and Heong (1992) explain, knowledge is an essential and can be used as a strategic tool against competitors. In a situation when world is moving towards knowledge economy, many corporate managers feel that Pakistan is loosing its strong markets to traditional competitors i.e. China, India and Bangla-Desh due to its lesser knowledge capital efficiency. As Kalim and Lodhi (2002) emphasize that Pakistan must take drastic steps to make its industry more knowledge efficient; otherwise Pakistan may lose even its present share of world exports.

IC is a strategic intangible asset which can transform a national firm to multinational and transnational corporate powerhouse. The research objective is to rank LSE-25 companies according to their IC performance, and identify best performers. IC performance measurement and management have become more important when service sectors are

playing vital role in growth of economies around the globe and their share in overall GDP is rising rapidly than production sector.

## 2. Literature review

Generally, IC is defined as creative abilities of human brain or mind. Edvinson and Malone (1997) defined IC as knowledge that can be converted into value. They further explain difference of market value and book value as value of IC. Stewart (1997) viewed IC as knowledge, information, intellectual property and expertise that can be put to use to create wealth. While Bontis et.al. (2000) explain IC as individual workers' and organizational knowledge that contribute to sustainable competitive advantage. He further elaborates that IC in broad sense consists of human capital and structural capital. While Pulic (2000a) includes all employees and their abilities that create value addition. Moore (1996) defines IC as customer capital, innovation capital and organizational capital. On the other side of the fence, Blair and Wallman (2001) perceive that it is difficult to provide precise definition for intangible assets as well as IC.

IC concepts can be categorized into, two major schools of thought (Mavridis, 2004). First school focuses on cost and tries to compute the IC through the difference between market and book value. Second school of thought is value oriented and focuses to measure IC efficiency through value addition by human and structural capital. Approach of second school of thought seems to be more recognized in the world. As method (VAIC<sup>TM</sup>) related to this school of thought based on value addition has been assessed and used by more than 12 researchers from different countries. VAIC<sup>TM</sup> approach is placed in second school of thought and it has become very popular. Its strength lay in its straightforward calculations, availability of reliable audited data and easy in comparison across various industrial sectors (Pulic, 2004). Alternative IC measures are limited as they can only be calculated by internal parties or they rely on sophisticated models, analysis and principles (Pulic, 2004). Beside the above Sveiby (1997) proposes conceptual framework for IC based on external structure (brands, customer and supplier relations); internal structure (organization, structure, system corporate attitude, R&D and procedures); and individual competence (education, experience) argues that money must not be used as proxy for human efforts.

In the developed world, the research in IC domain is widely explored by researchers; however there have been too few studies that have focused emerging economies as case for evaluating the implications of IC at stock exchange level. Pulic (2000b) used VAIC<sup>TM</sup> to measure and analyze the performance of FTSE-250 companies of London Stock Exchange. Kujansivu (2006) utilized subordinate concept of VAIC<sup>TM</sup>, intellectual capital efficiency (ICE) to analyze the IC performance of 20,000 companies covering 11 largest industries of Finland. Some other studies related to IC disclosure of FTSE-100, S&P-500 companies were conducted by William (2001) and Robert (2000) respectively. Mavridis (2004), Goh (2005) and Kamath (2007) used VAIC<sup>TM</sup> to analyze the performance of Japanese, Malaysian and Indian banks respectively and found significant differences in IC performance among the banks. Mavridis (2005) once more used VAIC<sup>TM</sup> and its subordinate concept best performance index (BPI) to analyze the performance of Greek banking sector and focused on the role of human capital (HC) and physical capital (CA) in value addition. Kamath (2007a) once again used VAIC<sup>TM</sup> methodology to measure and evaluate the IC performance of Indian pharmaceutical industry.

## 3. Methodology

The Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) used in this paper as a basic methodology to calculate and analyze the IC performance of LSE-25 companies was introduced by Pulic (1998). It gives a new insight to measure value creation efficiency in companies using data available in financial statements. VAIC<sup>TM</sup> is designed to effectively evaluate the efficiency in adding value (VA) by a firm. It focuses on value addition in an organization and not on cost control (Pulic, 2000a). The core concept of VAIC<sup>TM</sup> is that the human capital is mainly responsible for overall performance of the firm. VAIC<sup>TM</sup> is based on the following five calculations:

$$(i) VA = OUT - IN$$

Where VA is the value addition from current year resources.

Out = Total Sales and

In = Cost of bought in materials, components and services

Alternatively value added can be calculated as  $VA = OP + EC + D + A$

Where OP = Operating Profit      EC = Employee Cost

D = Depreciation      A = Amortization

$$(ii) VACA = VA/CA$$

Where VACA is the capital employed efficiency of the firm and

CA = Capital Employed (net book value of total assets)

$$(iii) VAHU = VA/HC$$

Where VAHU is the human capital efficiency of the firm and  
 $HC = \text{Total salaries and wages (Direct labour + Indirect labour + Admn., Marketing and Selling salaries)}$

$$(iv) STVA = ST/VA$$

Where STVA is the structural capital efficiency of the firm and  
 $ST = VA - HC$

$$(v) VAIC^{TM} = VACA + VAHU + STVA$$

Where VAIC indicates the corporate value creation efficiency

It must be noted that  $VAIC^{TM}$  does not provide money value of IC. It simply adds the 3 different efficiency factors of IC and calculates efficiency index that shows how IC of a company contributes towards value addition. Measuring IC efficiency, Pulic (2000a) also offers VAIC's subordinate concept that adds human and structural capital efficiency ( $ICE = VAHU + STVA$ ).

#### 4. Description, analysis and results

Major objective of the study is to examine and evaluate the IC performance of LSE-25 companies for six-year period from 2002 to 2007. The data was collected from six years audited financial statements of relevant companies. Evaluation is done on the basis of ranking based on  $VAIC^{TM}$  index and its subordinate concept ICE of each firm. The description of data aims towards better understanding of the values on the basis of which IC efficiency of firms is to be measured. Companies in the study are not limited to particular industrial sector, so as to see overall IC performance of top 25 companies of Lahore Stock Exchange.

Sector wise profile of LSE-25 index given in Table I is based on trading-volume wise top 25 companies of Lahore Stock Exchange having total market capitalization of Rs.1,719,754,463,599/= on 31<sup>st</sup> January, 2007 (LSE Newsletter, 2007).

Table II illustrates mean, minimum, maximum and standard deviation for different dependent and independent variables. The mean of human capital efficiency is 6.54 with minimum efficiency of -3.22 to maximum 21.93. That means LSE-25 companies produced Rs.6.54 on average for every one rupee spent on human capital. While, average  $VAIC^{TM}$  and ICE remained 7.60 and 7.29 respectively.

An evident aspect of Table III is that cement, oil & gas and chemical sectors are the top performers. Although 7 banks were represented in the sample, but none of them falls in the top ten performers as per 2006 results. Even then, their performance is good according to the performance zones computed in the study of 'IC performance of Japanese banking sector (Mavridis, 2004). In the banking sector, Faysal Bank Ltd. (a foreign financial institution) remains on the top both in  $VAIC^{TM}$  and ICE results in 2006. The reason behind high IC performance by Faysal Bank could be due to lesser investment in HC, more focus on big corporate clients and high value financial products. Results are consistent with the findings of the study of 'IC Performance of Indian Banks' (Kamath, 2007). She describes score of 5.0 or above for top performer banks and below 2.50 for bad performers. While, Goh (2005) works out 7.91 as average  $VAIC^{TM}$  for Malaysian banks. It can be concluded that in relation to Indian and Japanese performance zones, IC performance of Pakistani banks is quite satisfactory and if Malaysian banks are benchmarked then their performance would be considered poor.

Based on the 6 year figures for VAIC and ICE, changes in efficiency level of each company over the time can be assessed from Table III and Table IV. Large differences are found among top performers, least performers and different industrial sectors in value creation efficiency. ICE index ranking shows almost the same results, oil & gas, cement and chemical sectors have been found the best performers again. Most of the  $VAIC^{TM}$  top performers are also excellent in ICE. Top performance of oil and gas sector in  $VAIC^{TM}$  and ICE rankings is consistent with Kujansivu,s (2006) study of IC performance of Finnish companies. Public sector Pakistan International Airlines (PIA) and Pakistan Cement Ltd. were found least performers again. As far as least IC performance of Pakistan Cement is concerned, it has not yet started its commercial production. But more than 50 year old corporation PIA shows a consistently deteriorating trend in IC efficiency, which could be due to underutilization of its huge workforce, low productivity and outdated technology. PICIC and Bank Al-Falah also show declining trend in their IC performance, which could be due to huge non-performing loans, unplanned growth and poor investment decisions. These results were found consistent with IC performance of Indian banks (Kamath, 2007).

#### 5. Conclusion and policy implications

After evaluating the IC performance of LSE-25 based on  $VAIC^{TM}$  and ICE it is clear that best performing companies are those who mainly have good results in using human capital. This indicates that knowledge workers strongly

contribute towards value addition. Demand for IC disclosure has reached to top-ten information needs by users of financial statements in U.K. (Taylor Associates, 1998). But our conventional accounting system does not include IC disclosure in financial statements resulting trillions of value remains unrecorded. Even in a situation of least disclosure of IC in annual reports as well as non-recognition of IC by conventional accounting system, investors give value to invisible IC. So, IC efficiency and its disclosure should be considered as strategic asset for sustainable comparative advantage of a firm in a knowledge economy. International Accounting Standard Board and Securities & Exchange Commission of Pakistan may consider to establish accounting standard on IC like IAS-38 (Accounting for Intangibles) to record the intellectual assets at true & fair value and to disclose an important information need for users of financial statements.

### 5.1 Usefulness of the study

Being a pioneering attempt to analyze the performance of LSE-25 from a different perspective of IC, this paper would be a good source of reference for future research in Pakistani corporate sector. ICE can be used by fund manager for evaluating the performance of firms to visualize the improved picture before investment decision. The findings have implications for shareholders, potential investors and management to assess below par IC performance of their firm. This study can be used as benchmark for cement and banking sectors while evaluating their IC performance. VAIC™ based analysis are also useful to identify the problems and strength of different industrial sectors.

### References

- Blair, M.M. and Wallman, S.M.H. (2001). *Unseen Wealth: Report of the Brookings Task Force on Intangibles*. Brookings Institute Press, Washington, D.C.
- Bontis, N. (1998). Intellectual Capital: an exploratory study that develops measures and Models. *Management Decisions*, 36, 2, 63-76.
- Bontis, N., Kew, W.C.C. and Richardson, S. (2000). Intellectual Capital and Business Performance in Malaysian Industries. *Journal of Intellectual Capital*, 1, 1, 85-100.
- Bornemann, M. (1999). Potential of Value Systems According to the VAIC™ Method. *International Journal Technology Management*, 18, 5, 463-475.
- Edvinson, L. and Malone, M. (1997). *Intellectual Capital: Realizing your company's true value by finding its hidden brain power*, Harper Business, New York.
- Goh, P.C. (2005). Intellectual Capital Performance of Commercial Banks in Malaysia. *Journal of Intellectual Capital*, 6, 3, 385-396.
- Johnson, H. T., Kaplan, R. S. (1987). *Relevance Lost: The Rise and Fall of Management Accounting*, Harvard Business School Press, Boston.
- Kalim R and Lodhi, S. A. (2002). The Knowledge Based Economy: Trends and Implications for Pakistan. *Pakistan Development Review*, 41, 4, Part II, 787-804.
- Kamath, G.B. (2007). The Intellectual Capital Performance of Indian Banking Sector. *Journal of Intellectual Capital*, 8, 1, 96-123.
- Kamath, G.B. (2007a). Value Added by Intellectual Capital: A Study of the Indian Pharmaceutical Industry. *The Icfai Journal of Knowledge Management*, 5, 5, 57-68.
- Kujansivu, P. (2006). *Intellectual Capital Performance in Finnish Companies*, paper presented in 3<sup>rd</sup> Conference on Performance and Management Control, Nice, Finland.
- LSE Newsletter (2007). Lahore Stock Exchange. February, 2007, pp. 3-4.
- Mavridis, D.G. (2004). The Intellectual Capital Performance of Japanese Banking Sector. *Journal of Intellectual Capital*, 5, 1, 92-114.
- Mavridis, D.G. (2005). Intellectual Capital Performance Drivers in the Greek Banking Sector. *Management Research News*, 28, 5, 43-62.
- Moore, N.G. (1996). Measuring Corporate IQ. *Chief Executive*, November, 1996.
- Naqiyuddin, T.N.C.P. and Heong, L.H. (1992). *Malaysian Entrepreneurs*, Malaysian Institute of Management, Kuala Lumpur.
- Pulic, A. (1998). Measuring the Performance of Intellectual Potential in Knowledge Economy.[Online] Available: [www.vaic-on.net](http://www.vaic-on.net) (March 16, 2008).
- Pulic, A. (2000a). VAIC™ - an Accounting Tool for IC Management. [Online] Available: [www.vaic-on.net](http://www.vaic-on.net) (March 16, 2008).

Pulic, A. (2000b). MVA and VAIC<sup>TM</sup> Analysis of Randomly Selected Companies from FTSE-250. Austrian IC Research Center, Graz-London.

Pulic, A. (2004). Intellectual Capital - does it create or destroy value? *Measuring Business Excellence*, 8, 1, 62-68.

Robert, E. (2000). Corporate Disclosure in the Internet Age. *The Financial Times*, 14<sup>th</sup> May, 2000

Stewart, T.A. (1997). *Intellectual Capital: The New Wealth of Organizations*, Doubleday, New York, N.Y.

Sveiby, K.E. (1997). *The New Organizational Wealth: Managing and Measuring Knowledge based Assets*, Barrett-Kohler, San Francisco.

Taylor and Associates (1998). *Full Disclosure*, Shelly Taylor, London.

William, S.M. (2001). Is a Company's Intellectual Capital Performance and Intellectual Capital Disclosure Practices Related?, Evidence from Publicly Traded Companies from FTSE-100. [Online] Available: [www.vaic-on.net](http://www.vaic-on.net) (March 16, 2007).

World Bank (1998), World Development Report. [Online] Available at: [www.worldbank.org](http://www.worldbank.org)

Table 1. Sector wise profile of LSE-25 (2006)

Sector	Firms	Years	Firm-years
Banks	7	6	42
Oil/Gas/Power	7	6	42
Cement	5	6	30
Chemical/Fertilizer	2	6	12
Others	4	6	24
Total	25		150

Table 2. Descriptive Statistics of selected variables for the year 2007 of LSE-25

Variables	N	Minimum	Maximum	Mean	S.D
VALUE ADDED (Rs. in Millions)	25	-39	70 604	12 974	17 511
HUMAN CAPITAL (Rs. in Millions)	25	12	14 700	2 726	3 689
CAPITAL EMPLOYED (Rs. in Millions)	25	4 248	158 840	39 420	37 734
STRUCTURAL CAPITAL (Rs. in Millions)	25	-5 097	67 384	10 248	15 516
CAPITAL EMPLOYED EFFICIENCY	25	-0.0027	0.7450	0.3081	0.2097
HUMAN CAPITAL EFFICIENCY	25	-3.2221	21.9286	6.5368	5.1534
STRUCTURAL CAPITAL EFFICIENCY	25	-0.9591	1.3104	0.7559	0.3847
NET PROFIT (Rs. in Millions)	25	-12763	45970	5228	10733
EPS (Rs.)	25	-6.80	43.90	8.21	10.66
ICE	25	-1.9117	22.8829	7.2927	5.2865
VAIC <sup>TM</sup>	25	-1.9144	23.6279	7.6008	5.3994

Table 3. VAIC™ Ranking of LSE-25 (Sorted based on 2007 results)

VAIC™ = VACA + VAHU + STVA							
	Company Name	VAIC-2007	VAIC-2006	VAIC-2005	VAIC-2004	VAIC-2003	VAIC-2002
1	Oil and Gas Dev. Corp. Ltd.	20.76	23.63	22.55	14.97	14.62	12.57
2	Pak Petroleum Ltd.	12.25	12.45	10.04	8.86	5.26	4.57
3	Lucky Cement Ltd.	9.32	11.44	10.45	10.34	6.75	6.71
4	Pakistan PTA Ltd.	9.26	10.92	14.65	13.79	9.35	11.43
5	D.G.Khan Cement Co. Ltd.	9.19	16.55	14.00	10.02	6.77	8.64
6	Fauji Fertilizer Bin Qasim Ltd.	8.64	9.56	10.19	9.99	6.55	6.18
7	Fauji Cement Co. Ltd.	8.07	14.02	12.56	15.75	8.30	7.41
8	Pak State Oil Co. Ltd.	6.83	9.09	7.83	7.02	7.27	8.02
9	MCB Bank Ltd.	5.45	5.54	4.51	2.92	2.62	2.28
10	Nishat Mills Ltd.	5.43	4.14	5.18	3.71	3.82	4.12
11	The Bank of Punjab Ltd.	5.41	6.42	6.14	4.26	3.26	2.25
12	National Bank of Pak	4.88	5.23	4.99	3.92	3.60	3.31
13	Askari Comm. Bank Ltd.	4.54	5.17	5.21	6.09	5.90	5.45
14	Sui Nor. Gas Pipeline Ltd.	4.41	4.38	4.43	3.16	4.26	4.20
15	Dewan Salman Fibre Ltd.	4.36	5.38	5.59	6.91	6.47	9.44
16	Pak Telecom Corp. Ltd.	4.35	4.84	5.86	7.67	7.24	7.11
17	Pakistan Cement Co. Ltd.	4.09	-1.91	-2.91	0.58	1.18	1.19
18	Maple Leaf Cement Fact. Ltd.	3.88	10.06	10.17	10.54	6.63	9.45
19	Sui Southern Gas Co. Ltd.	3.82	3.65	3.40	3.32	3.67	3.88
20	Faysal Bank Ltd.	3.74	7.15	7.33	6.70	9.39	5.42
21	Bank Alfalah Ltd.	3.20	3.21	3.83	6.58	7.02	4.03
22	Karachi Elect. Corpl Ltd.	2.28	6.86	6.14	1.77	-1.54	-0.19
23	PIA Corp (A)	0.85	-0.36	0.41	2.32	3.09	4.68
24	Bosicor Pakistan Ltd.	0.42	9.04	9.47	-9.12	0.63	5.61
25	PICIC Bank Ltd/NIB Bank	0.15	3.55	9.88	11.02	6.64	3.92

\* Data is not publicly available due to non-listing status of the company in this year.

Table 4. Intellectual Capital Efficiency (ICE<sup>TM</sup>) Ranking of LSE-25 (Sorted based on 2007 results)

ICE = VAHU + STVA							
	Company Name	ICE - 2007	ICE - 2006	ICE - 2005	ICE -2004	ICE -2003	ICE -2002
1	Oil and Gas Dev. Corp. Ltd.	20.18	22.88	21.89	14.46	14.14	11.76
2	Pak Petroleum Ltd.	11.62	11.73	9.35	8.18	4.69	3.97
3	D.G.Khan Cement Co. Ltd.	9.12	16.38	13.79	9.82	6.64	8.47
4	Lucky Cement Ltd.	9.09	11.28	10.32	10.11	6.57	6.56
5	Pakistan PTA Ltd.	8.99	10.45	14.12	13.30	9.08	11.27
6	Fauji Fertilizer Bin Qasim Ltd.	8.31	9.31	9.94	9.78	6.45	6.08
7	Fauji Cement Co. Ltd.	7.79	13.51	12.29	15.42	8.19	7.29
8	Pak State Oil Co. Ltd.	6.35	8.46	7.20	6.49	6.70	7.49
9	The Bank of Punjab Ltd.	5.38	6.38	6.10	4.26	3.22	2.21
10	MCB Bank Ltd.	5.37	5.13	4.10	2.46	2.41	1.97
11	Nishat Mills Ltd.	5.29	3.98	4.97	3.45	3.51	3.69
12	National Bank of Pak	4.82	4.67	4.40	3.60	3.34	3.10
13	Askari Comm. Bank Ltd.	4.48	4.94	4.98	5.89	5.76	5.30
14	Dewan Salman Fibre Ltd.	4.12	5.18	5.35	6.62	6.19	9.09
15	Sui Nor. Gas Pipeline Ltd.	4.10	4.13	4.17	2.95	3.95	3.91
16	Pakistan Cement Co. Ltd.	4.03	-1.91	-2.91	0.57	1.17	1.18
17	Pak Telecom Corp. Ltd.	3.97	4.40	5.31	7.01	6.65	6.55
18	Maple Leaf Cement Fact. Ltd.	3.84	9.93	9.97	10.27	6.50	9.26
19	Faysal Bank Ltd.	3.70	6.92	7.14	6.53	9.14	5.26
20	Sui Southern Gas Co. Ltd.	3.44	3.34	3.11	2.99	3.33	3.53
21	Bank Alfalah Ltd.	3.17	2.96	3.53	6.31	6.80	3.87
22	Karachi Elect. Corpl Ltd.	2.36	6.40	5.81	1.80	-1.41	-0.10
23	PIA Corp (A)	0.81	-0.45	0.27	2.05	2.57	3.24
24	Bosicor Pakistan Ltd.	0.39	8.81	9.26	-9.12	0.65	5.14
25	PICIC Bank Ltd/NIB Bank	0.14	3.49	9.79	10.85	6.46	3.85

\* Data is not publicly available due to non-listing status of the company in this year.



# Analysis of the Convergence of Regional Economic Growth in Beijing

Daqing Shen, Ruiqiang Wang & Nan Yi

Statistical College, Capital University of Economics and Business, Beijing 100070, China

Tel: 86-10-8371-5077 E-mail: shendaq50@126.com

## Abstract

In this article, we studied the convergence of regional economic growth in Beijing. We divided 18 districts and counties in Beijing into four economic regions, utilized the method of Gini coefficient decomposition to educe the  $\sigma$ -convergence didn't exist in the regional economic growth of Beijing. At the same time, we utilized the panel data model and the spatial panel data model analysis to educe that the  $\beta$ - absolute convergence didn't exist in the regional economic growth of Beijing, but the  $\beta$ -conditional convergence existed, and analyzed the reason forming that  $\beta$ -conditional convergence.

**Keywords:** Gini coefficient,  $\beta$ -convergence,  $\beta$ -conditional convergence

## 1. Introduction

Since the late of the last century, the macro economy of Beijing has been operating well, but the large differences of growth of various districts and counties must influence the economic booms and social stability of Beijing. So the convergence and divergence of economic growth of various districts and counties in Beijing have been noticed by people.

The new-classical theory of economic growth thinks that if the exogenous technology is identical, the degression of capital marginal reward will make the undeveloped economic region develop with quicker growth speed, catch up with the developed region and realize the convergence of economic growth, i.e. the economic convergence. But the new growth theory thinks that the scale reward increase by degrees about material capital, technology and human capital may make the economic growths of difference regions develop at different directions, i.e. the divergence of economic growth. These two sorts of theory have debated the convergence of economic growth for a long term and induced many empirical researches.

In the empirical research of the convergence of regional economy, the economic convergence is generally divided into  $\sigma$ -convergence,  $\beta$ -convergence and club convergence. The  $\sigma$ -convergence means that the average GDP standard deviation of economic system possesses the descending trend. The  $\beta$ -convergence can be divided into  $\beta$ -absolute convergence and  $\beta$ -conditional convergence, and the  $\beta$ -absolute convergence means that the poor economic system has quicker development speed than the rich economic system and finally achieves same stable state. The  $\beta$ -conditional convergence means that the growth of economic system approaches different stable states because of the difference of self initial states. The club convergence means that for the interior of the economic groups with close economic development level in the initial stage, its growth speed and development level approach convergent, but the differences among groups still exist.

About  $\sigma$ -convergence, it is a better method to analyze by means of the decomposition of Gini coefficient. For  $\beta$ -convergence, most people use the cross section data or panel data to implement regression analysis. The regression model generally adopts the convergence analysis models based on Solow-Swan, Barro J R and Sala-I-Martin X:

$$(\log Y_{i,t+T} - \log Y_{i,t}) / T = X_i^* - [(1 - e^{-\beta T}) / T] \log(Y_i^* / Y_{i,t}) + u_{i,t} \quad (1)$$

Where,  $i$  means the economy of certain region,  $t$  denotes the time point at the certain initial observation period,  $T$  is the length of the observation period,  $\log Y_{i,t+T}$  is the logarithm of average GDP at the late of the observation period,  $\log Y_{i,t}$  is the logarithm of average GDP at the beginning of the observation period,  $X_i^*$  is the average output growth rate under the stable state,  $Y_i^*$  is the stable average GDP,  $\beta$  is the convergent speed of average GDP to stable level  $Y_i^*$ ,  $u_{i,t}$  denotes the random error. Obviously, when the convergent speed  $\beta$  is appointed, and if the economy of certain region is further from its stable level, i.e. the  $\log(Y_i^* / Y_{i,t})$  is bigger, so the year average growth rate of this region in  $T$

term will exceed the stable growth rate  $X_i^*$ . The economic growth rate of poor region will be higher than the rich region, and the regional difference will be gradually reduced from a long time, i.e. the convergence. The equation (1) can be further abbreviated as

$$\log Y_{i,t+T} - \log Y_{i,t} = A - (1 - e^{-\beta T}) \log Y_{i,t} + \varepsilon_{i,t} \quad (2)$$

Where, the intercept  $A = X_i^* + [(1 - e^{-\beta T}) / T] \log Y_i^* / T$  and the random error  $\varepsilon_{i,t} = u_{i,t} / T$  reflect the influences of temporary impacts. We use the nonlinear LS (NLS) to evaluate the above equation, and we can get the evaluation value of  $\beta$ . If  $\beta > 0$ , it shows that  $\beta$ -absolute convergence exists, and  $\beta$  is bigger, the convergent speed is quicker, and contrarily, if  $\beta < 0$ , it shows  $\beta$ -absolute convergence doesn't exist. If the control variable  $\psi_{i,t}$  is joined into the equation (1) and (2), we can get the model which can test  $\beta$ -conditional convergence.

The above researches to the economic growth convergences of country or region all regard the economic system as mutual independent individuals. However, the regional economy theory thinks that the mechanisms such as the exterior character, technical diffusion and factor flow of economic growth all promote the convergence of regional economic growth. Therefore, the function of space factor is not ignorable in the process of regional economic growth and many scholars considered the space factor when they studied the convergence of regional economy in recent years.

The regression model with space factor has two basic forms including the spatial regressive model (SAR) and the spatial error model (SEM).

$$\text{SAR: } y = \rho W y + \beta X + \varepsilon \quad (3)$$

SEM:  $y = \beta X + \varepsilon, \varepsilon = \lambda W \varepsilon + \mu$  and it can be described as

$$y = \beta X + (I - \lambda W)^{-1} \mu \quad \varepsilon, \mu \sim N(0, \sigma^2 I) \quad (4)$$

Where,  $y$  is the attributive variable,  $X$  is the independent variable,  $\beta$  is the coefficient of variable,  $\rho$  and  $\lambda$  are respectively spatial regressive coefficient and spatial self-relative coefficient,  $\varepsilon$  and  $\mu$  are random error items.  $W$  is the spatial weight matrix of  $n \times n$  ( $n$  is the number of region), and if the boundaries of region  $i$  and region  $j$  are neighbouring, and the value of  $W_{i,j}$  in  $W$  is 1, or else, it is 0.  $\beta$  is the elasticity of regional economic growth rate to the regional initial economic level, and it is the evaluation of regional economic convergence, and if  $\beta$  is significant negative, it shows that the convergence exists in economic growth, and if  $\beta$  is significant positive, it shows that the economic growth is divergent.

For the economic convergence analysis of China, most scholars' conclusions thought that the  $\sigma$ -convergence didn't exist in the regional economic growth of China, and the  $\beta$ -absolute convergence didn't exist too, but the  $\beta$ -conditional convergence existed. And some scholars studied the club convergence of China regional economic growth from different views.

In this article, we will empirically analyze the regional economic convergence of Beijing.

## 2. The empirical analysis of Beijing regional economic convergence

The data root in Beijing Statistical Yearbook issued by China Statistics Press, and the statistical software is Eviews 5.0. First, we divide 18 districts and counties in Beijing into four economic regions including function core region, function development region, new development region and ecological conservation region. The function core region includes Dongcheng, Xicheng, Chongwen and Xuanwu, and the function development region includes Chaoyang, Haidian, Fengtai and Shijingshan, and the new development region includes Shunyi, Changping, Daxing, Tongxian and Fangshan, and the ecological conservation region includes Huairou, Miyun, Yanqing, Pinggu and Mentougou.

Supposed that  $k=1, 2, 3, 4$  respectively denote function core region, function development region, new development region and ecological conservation region, and  $u_{kt}$  denotes the average GDP of the  $k$ 'th economic region in  $t$  year, and  $u_t$  is the average GDP of Beijing in  $t$  year. The average GDP of various districts and counties in  $t$  year are denoted by  $y_{it}$  ( $i=1,2,\dots,18$ ).

### (1) $\sigma$ -convergence analysis

The total Gini coefficient of  $t$  year in Beijing can be decomposed as (Rf. [7])

$$\begin{aligned} G_t &= \frac{1}{2n^2 u_t} \sum_{i=1}^n \sum_{j=1}^n |y_{it} - y_{jt}| = \sum_{k=1}^4 v_{kt}^2 w_{kt} G_{kt} + G_{bt} + O_{bt} \\ &= v_{1t}^2 w_{1t} G_{1t} + v_{2t}^2 w_{2t} G_{2t} + v_{3t}^2 w_{3t} G_{3t} + v_{4t}^2 w_{4t} G_{4t} + G_{bt} + O_{bt} \end{aligned} \quad (5)$$

Where,  $n$  denotes that the number of district and county which can be observed in  $t$  years, and  $v_{kt} = p_{kt} / p_t$  ( $k = 1,2,3,4$ ) is the ratio of the  $k$ 'th economic region population  $p_{kt}$  of  $t$  years with the total population  $p_t$  of Beijing, and  $w_{kt} = u_{kt} / u_t$  ( $k = 1,2,3,4$ ) is the ratio of the  $k$ 'th economic region average GDP  $u_{kt}$  of  $t$  years with the average GDP  $u_t$  of Beijing, and  $G_{kt}$  denotes the interior Gini coefficient of the  $k$ 'th economic region of  $t$  years, and

$$G_{kt} = \frac{1}{2n_k^2 u_{kt}} \sum_{i=1}^{n_k} \sum_{j=1}^{n_k} |y_{kit} - y_{kjt}| \tag{6}$$

Where,  $n_k$  denotes the number of district and county which can be observed in the  $k$ 'th economic region of Beijing, and  $y_{kit}$  denotes the average GDP of  $t$  years of the  $i$ 'th district or county in the  $k$ 'th economic region, and  $O_{bt}$  is a sort of Gini coefficient residue depending on average GDP cross frequency among four economic regions, and it is called as the super-change density. But

$$G_{bt} = \frac{1}{u_t} \sum_{1 \leq i < j \leq 4} v_{it} v_{jt} |u_{it} - u_{jt}|$$

$$= \frac{1}{u_t} (v_{1t} v_{2t} |u_{1t} - u_{2t}| + v_{1t} v_{3t} |u_{1t} - u_{3t}| + v_{1t} v_{4t} |u_{1t} - u_{4t}|$$

$$+ v_{2t} v_{3t} |u_{2t} - u_{3t}| + v_{2t} v_{4t} |u_{2t} - u_{4t}| + v_{3t} v_{4t} |u_{3t} - u_{4t}|) \tag{7}$$

denotes the Gini coefficient of average GDP difference among  $k$  economic regions, and we can get Table 1 according to equation (5), (6) and (7).

Through Table 1, we can know that the total Gini coefficient from 1994 to 2004 and the Gini coefficients of various economic regions have obviously ascending trend, which can indicate the  $\sigma$ -convergences don't exist in the whole Beijing and various economic regions. In addition, as viewed from the contribution rate to Gini coefficient, the contribution rates among four economic regions obviously exceed the contribution rates in group, which further shows the differences of Beijing regional economic development are mainly from the differences among four economic regions.

(2)  $\beta$ -convergence analysis

We utilize the panel data and spatial panel data from 1994 to 2004, and adopt following two models to implement  $\beta$ -convergence analysis for the Beijing regional economic growth.

a. The model without regional dummy variable

$$\log Y_{i,t+T} - \log Y_{i,t} = A - (1 - e^{-\beta T}) \log Y_{i,t} + \varepsilon_{i,t} \tag{8}$$

b. The model with regional dummy variable

$$\log Y_{i,t+T} - \log Y_{i,t} = -(1 - e^{-\beta T}) \log Y_{i,t} + \lambda D_k + \varepsilon_{i,t} \tag{9}$$

Where,  $D_1$ ,  $D_2$ ,  $D_3$  and  $D_4$  respectively denote function core region, function development region, new development region and ecological conservation region. According to above two models, we implement regression analysis to average GDP growth rates of 18 districts in Beijing from 1994 to 2004, and the result is seen in Table 2.

From Table 2,  $\beta$ -absolute convergence doesn't exist in regional economic growth of Beijing. But the introduction of regional dummy variable can make the regional economic growth of Beijing possess  $\beta$ -conditional convergence, and the convergent speed is about 2%, which indicates the factor of region is one important reason influencing the convergence of regional economic growth.

Secondly, we use the following model to analyze the convergence.

$$\log Y_{i,t+T} - \log Y_{i,t} = A - (1 - e^{-\beta T}) \log Y_{i,t} + \lambda \psi_{i,t} + \varepsilon_{i,t} \tag{10}$$

Where,  $\psi_{i,t}$  ( $i = 1,2,\dots,18$ ) are control variables which mean some index variables of  $t$  years in the  $i$ 'th region and these control variables mainly include finance earning proportion (the ratio of financial earning and the GDP of  $t$  years), finance payout proportion (the ratio of finance payout and the GDP of  $t$  years), industrial structure variable (the weighted average of the ratio of the logarithm growth rate of various industrial production values with GDP), and actual proportion using foreign capital amount (the ratio of actual using foreign capital amount with GDP of the same year). The computation result is seen in Table 3.

From Table 3, all control variables will validate the  $\beta$ -conditional convergence of Beijing regional economic growth

and the convergent speed achieves about 3%, which indicates those control variables can not be ignored to influence the  $\beta$ -conditional convergence.

Finally, we introduce spatial factor, consider regional dummy variable, and increase the control variable, i.e. the proportion of social consumable retail amount (the ratio of social consumable retail of  $t$  years in the  $i$ 'th district with GDP of the same year,  $i=1, \dots, 18$ ) to analyze the convergence. The adopted models should be the spatial regressive model (3) and the spatial error model (4). Theoretically, we can select the spatial regressive model or the spatial error model through the test of LM statistics (Xiang, 2007). From foreign relative researches, the  $\beta$  convergence model of regional average GDP can be analyzed through statistical test or probing space measure and most scholars support the spatial regressive model. And some scholars thought if the spatial regressive model can be used to fit, and even if the statistic is worse than the space error model, but if the statistic test is significant, the spatial regressive model will be better, which can be explained more easily from the economic meaning. In this article, we can adopt the spatial regressive model (11), and we can get Table 4 through computation.

$$\log Y_{i,t+T} - \log Y_{i,t} = A - (1 - e^{-\beta T}) \log Y_{i,t} + \lambda \psi_{i,t} + \rho W(\log Y_{i,t+T} - \log Y_{i,t}) + \varepsilon_{i,t} \quad (11)$$

From Table 4, the regional dummy variable, social consumable retail amount proportion and spatial factor will make  $\beta$ -conditional convergence occur in the regional economic growth of Beijing, and the convergent speed is about 2%-3%. At the same time, the introduction of spatial factors can make the regulative  $R^2$  obviously exceed the regulative  $R^2$  without spatial factor, and it is obvious that the spatial factor (geographical place) is also the important factor to influence the convergence of the regional economic growth of Beijing.

### 3. Conclusions

Above empirical results from 1994 to 2004 indicate that the  $\sigma$ -convergence and the  $\beta$ -absolute convergence doesn't exist in the regional economic growth of Beijing, but the  $\beta$ -conditional convergence exists, and the differences of Beijing regional economic growth are mainly from the differences of four economic regions, and the many factors such as regional factor, average GDP in the initial stage, finance earning proportion, finance payout proportion, level of industrialization, level of serving industry, social consumable retail amount proportion, actual proportion using foreign capital and spatial factor are un-ignorable factors to influence the convergence of Beijing economy. Therefore, we put forward following policy advices as conclusions.

#### (1) Emphasizing the problem of economic difference of various districts or counties in Beijing

From 1994 to 2004, the differences of economic growth exist in various districts or counties of Beijing and increasingly extend. Though the economic difference of various districts or counties is inevitable, but over large economic difference will damage the distribution efficiency of resource, and it will seriously influence the development of the whole economy of Beijing. Furthermore, the efficiency only emphasized without justice will influence the social stability. Therefore, the economic difference of various districts or counties of Beijing must be emphasized.

#### (2) Strengthening the cooperation among economic regions and reducing the difference among economic regions

The difference among four economic regions is main reason to induce the regional economic difference of Beijing. Undeveloped districts or counties of Beijing should not develop the economy extensively, and they must intensively develop the economy depending on their own regional advantages and resource gift advantages. The administration of Beijing should harmonize and encourage the communication between undeveloped districts or counties with developed districts or counties on the layer of enterprise, and develop the economy more quickly depending on the direction, support of developed districts or counties and the enhancement of self level. At the same time, according to the principle of mutual complement of advantage, mutual benefit and mutual development, the long term cooperation and communication should be promoted among economic regions. The support degree should be strengthened for undeveloped districts or counties, and the inclined policies about talent, education, financial transfer payout and basic establishment should be implemented for these regions. The opening degree and the marketization degree of undeveloped districts or counties should be enhanced, and the economical public character and the space overflow effect of economy should be utilized to gradually reduce the difference for undeveloped economic regions.

#### (3) Flexibly using financial policies and promoting the transformation and update of regional industrial structure

The administration of Beijing should plan and harmonize the economic development of various districts or counties and the establishment of financial policies as a whole, and optimize the financial earning and payout structure, increase financial payout for the undeveloped districts or counties, implement measures of tax reduction, and optimize the structure of tax system. Various economic regions of Beijing have formed different industrial structures in the long term development, and the government departments should adopt strategic regulatory measures, and fully promote the generation and updating of industrial structure for various districts or counties. In the structured adjustment of the second industry, the traditional industries should be changed by high and new technologies and advanced technologies. In the structured adjustment of the third industry, we should face the production and denizen consumption, utilize modern management mode and serving technology, change and develop traditional serving industry, and promote the

marketization of the servicing industry, for example, fully develop the tour industry, financial insurance and community serving. So we can enhance the economic growth speed of undeveloped districts or counties, reduce the difference among economic regions and make for the convergence of economic growth.

### References

- Chen, Xiaoling & Li, Guoping. (2006). Economic Convergences in China. *Economic Science*. No.5.
- Gong, Yunteng. (2007). Analysis of Evolvement of Regional Economic Inequality in Jiangsu. *Journal of Nanjing Audit University*. No.2.
- Hu, Zuguang. (2004). The Best Value and Simple Formula of Gini Coefficient. *Economic Research*. No.9.
- Jia, Yanle. (2006). Analysis on Convergence of Economic Growth among the Region of China. *Heilongjiang Foreign Economic Relations*. No.2.
- Liu, Xiaming. (2004). Convergence or Divergence? Debate on China's Regional Development. *Economic Research*. No.7.
- Qian, Zhengming, Guo, Penghui, Liangwei & Yu, Yanping. (2006). Economic Analysis Basing on State Space Model. *Journal of Xiamen University*. No.1.
- Shen, Kunrong & Majun. (2002). Analysis of Club Convergence Phenomenon in China. *Economic Research*. No.1.
- Tang, Xuebing & Chen, Xiushan (2007). Analysis of Economic Convergence and Its Influence Factors in Eight Major Regions of China. *Journal of Renmin University of China*. No.1.
- Wang, Xiaolu & Fangang. (2004). Analysis on the Regional Disparity in China and the Influential Factors. *Economic Research*. No.1.
- Wei, Houkai. (1997). The Growth and Its Convergence of China Regional Economy. *China Industrial Economics*. No.3.
- Xiang, Yunfan & Wang, Shaoping. (2007). Spatial Panel Data Analysis for China's Regional Per-capita GDP Convergence. *Journal of China University of Geosciences (Social Sciences Edition)*. No.5.

Table 1. Total Gini coefficients and Gini coefficients of various economic regions from 1994 to 2004

Year	Total Gini Coefficient	Regional Gni Coefficient in Function Core Region	Gini Coefficient in Function Develop Region	Gini Coefficient in New Development Region	Gini Coefficient in Ecological Conservation Region	Contribution Ratio in Group	Contribution Ratio among Groups $G_{br}$	Super-change Density $O_{br}$
1994	0.1834252	0.15082	0.111687	0.055185	0.129218	0.030889	0.121576	0.030961
1995	0.18283908	0.167688	0.134076	0.063642	0.138172	0.036985	0.153587	-0.00773
1996	0.19151331	0.197634	0.167846	0.092631	0.143834	0.047014	0.16104	-0.01654
1997	0.19765901	0.21514	0.189235	0.120673	0.144803	0.05499	0.168965	-0.0263
1998	0.20230125	0.232178	0.217089	0.138843	0.140943	0.06169	0.165485	-0.02487
1999	0.21494181	0.251936	0.228472	0.171689	0.165475	0.068141	0.159833	-0.01303
2000	0.22944211	0.256257	0.256042	0.184912	0.203927	0.075261	0.166152	-0.01197
2001	0.24774248	0.260438	0.311822	0.209029	0.242958	0.091208	0.1485	0.008035
2002	0.25690959	0.273473	0.314495	0.218432	0.266249	0.094524	0.148375	0.01401
2003	0.28477092	0.304958	0.337858	0.258105	0.304879	0.103101	0.145581	0.036089
2004	0.29657848	0.330232	0.340553	0.260088	0.314554	0.107248	0.160284	0.029046

Table 2. Absolute convergence test results and the equation test results with regional dummy variables

Explanation variables	Absolute convergence test result (p-value)	The equation test result with regional dummy variable (p-value)
Average GDP in the initial stage	0.00101(0.924)	-0.018207(-0.2112)
Regional dummy variable $D_1$		0.131316(0.0399)
Regional dummy variable $D_2$		0.1283(0.0373)
Regional dummy variable $D_3$		0.115267(0.0515)
Regional dummy variable $D_4$		0.120157(0.0405)
Intercept item	0.04437(0.3156)	
Regulative $R^2$	0.24416	0.251286
F	58.82252	16.01913

Table 3. The regional economic growth convergence with control variables

	Equation 1 (value of p)	Equation 2 (value of p)	Equation 3 (value of p)	Equation 4 (value of p)
Average GDP in the initial stage	-0.0229 (0.2661)	-0.025726 (0.1654)	-0.044765 (0.0213)	-0.03845 (0.0577)
Intercept item	0.12862 (0.1366)	0.181645 (0.0201)	0.162989 (0.0317)	0.195075 (0.0191)
Finance earning proportion	-0.1958 (0.0017)	-0.185242 (0.0019)	-0.168747 (0.0052)	-0.20628 (0.0012)
Finance payout proportion	0.16099 (0.0046)	0.143876 (0.0085)	0.121864 (0.029)	0.191321 (0.0011)
Variable of industrial structure	0.10208 (0.3189)			
Level of industrialization		-0.093168 (0.0234)		
Level of the serving industry			0.1227 (0.0033)	
Actual proportion using foreign capital				-0.01641 (0.2568)
regulative $R^2$	0.182	0.234083	0.253597	0.181631
F	2.89649	3.605081	3.896035	2.891793

Table 4. The regional economic growth convergence with regional dummy variables, social consumable retail amount proportion and space factors

	Equation 1 (value of p)	Equation 2 (value of p)	Equation 3 (value of p)	Equation 4 (value of p)	Equation 5 (value of p)	Equation 6 (value of p)
Average GDP in the initial stage	-0.008116 (0.3459)	-0.016624 (0.1434)	-0.029818 (0.1075)	-0.018998 (0.2764)	-0.036793 (0.0447)	-0.023329 (0.1272)
Intercept item	0.044806 (0.2153)		0.110447 (0.1531)	0.100841 (0.1729)	0.099785 (0.1772)	
Regional dummy variable $D_1$		0.083185 (0.0953)				0.121789 (0.0767)
Regional dummy variable $D_2$		0.050099 (0.3036)				0.08779 (0.1789)
Regional dummy variable $D_3$		0.068764 (0.1403)				0.104271 (0.0922)
Regional dummy variable $D_4$		0.076077 (0.0969)				0.100857 (0.0970)
Finance earning proportion			-0.080525 (0.088)	-0.064009 (0.1295)	-0.05597 (0.203)	-0.103075 (0.0153)
Finance payout proportion			0.112068 (0.0185)	0.071376 (0.0792)	0.062986 (0.1398)	0.109894 (0.0084)
Level of industrialization				-0.080861 (0.0158)		-0.032216 (0.2166)
Level of the serving industry					0.088836 (0.0102)	
Proportion of social consumable retail amount			-0.005622 (0.1060)	-0.004743 (0.1676)	-0.005977 (0.0899)	-0.00382 (0.2514)
Actual proportion using foreign capital			-0.010915 (0.2840)			-0.007964 (0.2677)
Space factor	0.14823(0)	0.170651(0)	0.207877(0)	0.201612(0)	0.199851 (0)	0.177305(0)
Regulative $R^2$	0.5358	0.58502	0.6021	0.653302	0.631531	0.559895
F	104.3048	51.4692	12.77658	15.66522	14.33887	23.77208



## A Research on the Structure of Customer's Service Recovery Expectation

Qing Cong

School of Economics & Management, Southwest Jiao Tong University, Chengdu 610030, China

Tel: 86-28-8461-6070 E-mail: congqing2007@yahoo.com.cn

Jianbo Fu

School of Management, Chengdu University, Chengdu 610106, China

Tel: 86-28-8461-6070 E-mail: cdfjb@263.com

### Abstract

Aiming at the actuality that the research about customer service recovery prediction structure is relatively deficient under the background of China culture, based on literature analysis, profound interview, opening investigation and expectation research, we adopt exploratory factor analysis method and confirmatory factor analysis method to develop and validate the scale used to measure customer service recovery expectation in this article. The confirmatory result shows that the scale possesses better reliability and validity level, and the basic content of customer service recovery expectation includes recovery attributes, failure attribution and empowering employees for problem solutions, and in these three factors, the dimension of failure attribution has the largest influences to the satisfaction after customer service recovery.

**Keywords:** Service Recovery, Customer Satisfaction with Service Recovery, Failure Attribution, Recovery Attributes, Empowerment

### 1. Introduction

The process property implementing with production and consumption of service product makes service failure inevitable, so the "zero failure" of service quality will never happen, and the service industry has to face the problem how to make customers "secondary" satisfaction when failure occurs in the service. Service recovery is the action that the service provider should adopt for the service failure (Gronroos, 1988, P.10-13). Researches indicated that the service recovery could enhance customers' perceptive value, satisfactory feeling, loyalty and credit, and the satisfactory service recovery is propitious to reduce customers' conversion intention and fluidity (Bitner, 1990, P.71-84, Brown, 1996, P.32-46, Lewis, 2004, P.6-17 & Cong, 2007, P.54-63). McCollough's "service recovery paradox" even pointed out that customer's satisfaction after service recovery would exceed customer's satisfaction without service failure, which more showed the importance of service recovery (Boshoff, 1999, P.236-249).

Customer Satisfaction with Service Recovery is that customer's actual experience to service recovery is better than his expected psychological evaluation and perception. To confirm customer's expectation for service recovery is the premise and important base to study and establish the strategy of service recovery for enterprises. The researches about service recovery expectation in existing literatures involve three dimensional opinions, four dimensional opinions and five dimensional opinions. Aiming at aviation service and bank service, Boshoff et al put forward the three factors including attribution, apology and empowerment of service recovery expectation by the method of experiment through the investigation to 239 informants, and emphasized that the importance of every factor to the customer is not same, and the attribution of assuming mistake is more important than other dimensions (Boshoff, 1998, P.24-47). Through the researches about 700 key service events including Bank, catering, hotel and aviation, Bitner et al found that successful service recovery should include four key factors such as admitting failure, explanation, apology and compensation (Bitner, 1990, P.71-84). Bell et al thought that the service recovery should at least include apology, urgent repair, pure-hearted understanding, symbolic compensation and follow. Subsequently, Bell et al put forward another opinion of five factors and thought the apology, fair solution, pure-hearted treatment, compensation, promise and other service recovery modes could be used to eliminate customer's unsatisfactory emotion when they studied the service recovery of training department for enterprise (Bell, 1992, P.58-63). When Boshoff studied the service recovery for bank customer satisfaction, they identified that six expectations including communication, explanation, atonement, empowerment, feedback and tangibles existed in customer's satisfactory service recovery through the empirical method (N>700), and

developed the satisfactory scale after service recovery which was called RECOVSAT (Boshoff, 1999, P.236-249 & Boshoff, 2005, P.410-425). Boshoff et al reported that the scale possessed higher reliability ( $\alpha = 0.899$ ), construct validity and predictive validity, and pointed out that the importance degrees of various dimensions of service recovery to customer's satisfaction are different, and the importance of communication was stronger than other dimensions.

Through simple review to existing literatures, we found that past researches emphasized theoretical deduction and situational experiment for the research method, and they had not passed strict empirical test (Bowen, 1995, P.73-84), which might be the main reason to reduce the cognition divergence among peoples for the service recovery expectation (Boshoff, 1998, P.24-47). More importantly, because of different cultural backgrounds, consumers in different countries have different expectations to service recovery (Kanousi, 2005, P.57-69 & Lorenzoni, 2004, P.11-25). Though service recovery relates to factors such as service sort and the degree of service failure, but according to Tax and Brown's service recovery justice theory (Tax, 1998, P.60-67), customer's expectation to satisfactory service recovery certainly had commonness, so it is the necessary premise and important base to analyze and know these service recovery expectations for that the service industry establish the strategy of service recovery. Therefore, based on the summarization of literatures, in this article, starting from customer interview, we use the questionnaire of service recovery expectation, adopt many empirical research methods such as exploratory factor analysis and confirmatory factor analysis, try to describe the basic structure and content of customer service recovery expectation under China background through sample investigation of service failure/ service recovery evolved in many service industries, in order to offer references for the service recovery management practice in the service industry and further study the service recovery.

## 2. Scale design and data collection

### 2.1 Questionnaire design

Conforming to Churchill's scale exploitation program, we first comprehensively scan literatures evolving customer service recovery expectation and enterprise service recovery strategy, form proper items from quantitative and qualitative views, and confirm basic item though bidirectional translation. Then we implement customer interview to the formative basic item, which main intention is to test the adaptation degree. Through the interview to 67 consumers, we found that almost half of items were opposed by informants, so we used opening questionnaire to investigate 145 customers (including student, worker, manager, teacher and administrative and finance employees) including 67 informants, required them to write their demands to service recovery, and ranked the importance (five items), and classified and summarized all involved items through the discussion by one enterprise management doctor and one enterprise management master, and design the items of questionnaire and make initial questionnaire based on that. Finally, the initial questionnaire was sent to doctor tutor, bank customer service manger, hotel duty manager, supermarket compliant disposal employees and relative persons to evaluate the adaptation and rationality of questionnaire, and then we modified the initial questionnaire according to their opinions, obtained the advance questionnaire with 26 items including four aspects such as employee trustiness, mode of service recovery, solution and service failure attribution. Then we used the advance questionnaire to investigate 112 consumers, and returned 94 effective questionnaires. We used the factor analysis method to analyze the item validity and the questionnaire structure, and found that the item load of employee trustiness was lower ( $<0.4$ ), and the phenomena of multiple loads existed, and the formal questionnaire including 19 items formed after eliminating these multiple load items (Nunnally, 1978).

### 2.2 Samples

In the investigation, informants were required to recall whether they had displeasing and unsatisfactory experiences when they accepted service lately, and if they had the displeasing experiences, they were required to fill the accord degree between the treatments and questionnaire items, and the filling adopted Likert 5 point scale, and 1 represented "very discord", and 5 represented "very accord", and finally the informants were required to fill their satisfaction degrees for the treatment results, and 1 represented "very unsatisfactory", and 5 represented "very satisfactory". The investigation put out 453 questionnaires, returned 259 effective questionnaires, and the effective return rate was 57.17%. The consumers' occupations evolved in the samples included student, employee, manager, civil servant, teacher, medical employee and professional technical employee, and the basic characters of sample included that the male and female sex proportion was 1.07:1, and the age distribution was that the personnel below 20 occupied 8.1%, the personnel from 21 to 30 occupied 46.3%, the personnel from 31 to 40 occupied 39.4%, and the personnel above 40 occupied 6.2%. In the samples, the personnel with senior high school experiences occupied 40.9%, the personnel with collegial experience occupied 50.2%, the personnel with master and above master experiences occupied 8.9%. The month income level in the samples mainly centralized in 1000 Yuan to 3000 Yuan and occupied 67.5%, and the area below 1000 Yuan occupied 15.1%, and the area above 3000 Yuan occupied 17.4%. The service failure/recovery event of sample happened in bank (25.1%), eatery (24.7%), telecom (17%), supermarket (10.8%), and aviation (8%). Therefore, the sample distribution for the vital statistics character was balanced.

### 3. Data analysis and scale validation

Next, we would audit, treat and analyze the return investigation materials. We adopted the factor analysis method of SPSS13.0 statistical software to explore the structure dimension of service recovery, and adopted the confirmatory factor analysis method of Lisrel 8.54 statistic software to validate the exploratory research results.

#### 3.1 Unidimensionality and reliability test

##### (1) Exploratory factor analysis

The exploratory factor analysis indicated that the KMO test and Bartlett test of samples showed that the original data suited for factor analysis, and then we adopt the principal component analysis and the VARIMAX factor rotation method to implement factor analysis to data. In the analysis, we adopt following three standards to select proper measure variable. First, the minimum load of the variable on certain factor is 0.4. Second, the cross load between variable with other variables is low. Third, the connotation of certain variable must keep consistent with the connotation of other variable of same factor. Only the variable which could fulfill one or two above standards could be kept. Through this process, we adopt the factor which latent root exceeds 1, hold 15 measure variables and obtain a clear 3D structure where 15 items could better vest in 3 component factors, the factor load of every measure item exceeds 0.5, the multiple load doesn't exist and the difference explanation rate exceeds the level of 60% (Hair, 1998).

##### (2) Confirmatory factor analysis

The confirmatory factor analysis is used to test the stability of 3D structure of service recovery expectation. According to primary result, the fitting degree should be further improved, and one item is eliminated because it displays weak confirmation character. Table 1 is the final analysis result, and the total fitting indexes of the model include  $\chi^2=118.67$  ( $p=0.00$ ),  $df=53$ ,  $\chi^2/df=2.239$  ( $<3$ ),  $GFI=0.94$  ( $>0.90$ ),  $SRMR=0.048$  ( $<0.06$ ),  $RMSEA=0.060$  ( $<0.08$ ),  $NNFI=0.97$  ( $>0.95$ ),  $CFI=0.98$  ( $>0.95$ ). Though the statistic of  $\chi^2$  test is notable, but other fitting indexes indicate the 3D model could be accepted (Bagozzi, 1988, P.74-94 & Hou, 2004, P.382-414), which shows that good fitting exists between explanation models with data.

##### (3) Scale reliability test

The Cronbach's Alpha coefficient of service recovery expectation scale is 0.834, and the Cronbach's Alpha coefficient of three dimensions respectively are 0.843, 0.805 and 0.768, and the composing reliability based on Lisrel respectively are 0.860, 0.834 and 0.797, and all  $t$  values possess strong statistical significance ( $>3.29$ ), which shows the measure model possesses good interior coherence and the scale credit is tested.

#### 3.2 Construct validity test

The construct validity is used to test whether the scale could really measure the variable and differentiate convergent validity and discriminate validity. We first use the confirmatory factor analysis to test whether the average variances extracted (AVE) of various potential variables exceeds 0.5, and whether the factor load of every measure variable index on the potential factor possess statistical significance (Anderson, 1998, P.411-423). As seen the line B in Table 1, the loads of all factors exceed 0.5, and the test result of Table 3 shows that the AVE value of various potential variables exceeds 0.5, and values of  $t$  achieve the significant level, and all mode coefficients (seen in line B of Table 1) are double times than corresponding standard errors (seen in line C of Table 1), and the composing credits are higher than the advice values by above 0.7, which means the scale possesses good differentiation validity. For the test of discrimination validity, according to Fornell and Larcker's advices, we compare whether the arithmetic square roots of various AVE values exceed the relative coefficients between them and other factors. From Table 2, the arithmetic square roots of various AVE values obviously exceed the relative coefficients between them and other factors, which indicate that the scale possesses good discrimination validity (Fornell, 1981, P.382-389).

#### 3.3 Predictive validity test

We select the satisfactory variable after service recovery to be customer's prediction concept for service recovery expectation in order to test the predictive validity of scale. The satisfaction after service recovery includes three items (totally speaking, the recovery measure of enterprise is satisfactory, and the recovery measure of enterprise accords with your expectation or prediction, and the recovery measure of enterprise achieves ideal level). The Spearman correlation coefficient is 0.709 ( $p<0.01$ , 2-tailed), and the regression equation is  $SAT=0.029+0.199\xi_1+0.339\xi_2+0.233\xi_3$ , which indicates that customer's perception to the scale item of service recovery possesses significant predictive ability to form satisfaction feeling, and the prediction validity is tested.

### 4. Result and discussion

#### 4.1 Analysis of factor

Through above analysis, we obtain the 3D structure result of service recovery expectation. The first factor is composed

by explanation, apology, compensation, the satisfactory feeling communication after recovery and other measure items (seen in Table 1), and it is closely correlative with concrete modes of service recovery, and it can be summarized as the factor of “recovery mode”. The second factor indicates that the customer hopes service providers assume the responsibility for service failure, and it is correlative with service failure attribution, and it can be explained as “failure attribution”. The measure items included in the third factor reflect that customers hope the employees accepting complaints could solve the problems themselves, and the third factor is correlative with the authorization level of service enterprise, and it can be reduced as the “authorization solution”. Therefore, the basic structure of customer service recovery expectation under China background is composed by three factors including recovery mode, failure attribution and authorization solution. The factor of “failure attribution” embodies the theory of customer attribution to certain extents, and the factor of recovery mode and the factor of authorization solution embody the theory of customer justice including result justice (such as solving problem and compensation), process justice (such as explanation and the speed to solve problems) and the justice of mutual treatment (such as apology and satisfaction after inquiring recovery) to different extents.

#### *4.2 Analysis of factor importance*

From the regression equation, three dimensions of service recovery expectation have different influencing degrees to the satisfaction after customer service recovery. The dimension of failure attribution is the most important factor for forming customer’ satisfaction after service recovery ( $\beta=0.339$ ), and the conclusion is consistent to Boshoff and Leong’s researches, but the importance of the service recovery factor is the lowest one ( $\beta=0.199$ ), and the importance of authorization solution factor is between above two factors ( $\beta=0.233$ ). Under the cultural background of China, we can understand and explain the result. When the conflict occurs and is solved, the traditional culture of China always requires people to follow the principle of “essentiality, benefit and strictness”. In the service recovery expectation, customers emphasize that service provider admits the factor of service failure, because customers hope they could be the reasonable party and require employees to solve problem and explain and apologize.

### **5. Conclusions and revelations**

In this article, we use the questionnaire of service recovery expectation and adopt exploratory factor analysis method and confirmatory factor analysis method to open out the basic content of customer service recovery expectation under the background of China including three dimensions such as recovery attributes, failure attribution and empowering employees for problem solutions. The empirical result also finds that Chinese customers’ expectation to the service recovery mode requires the intervention of manager, and their perceptions to three basic dimensions of service recovery have different influencing degrees to their satisfaction feelings. The dimension of failure attribution is the most important one, and the importance of the service recovery attributes factor is the lowest one. Concretely speaking, when the service failure occurs, Chinese customers require service providers could assume responsibilities for the failure, anticipate the employee accepting the complaint could rapidly solve their problems, and hope the employees and managers of service enterprises could explain and apologize the service failure and offer certain compensations.

We adopt the empirical research method to discuss the structure dimension of customer service recovery expectation under the background of China, and the empirical result and the measure scale can not only enrich relative researches in the service recovery domain theoretically, but offer references for future empirical researches. First, for the effect evaluation of service recovery, the service enterprises could utilize the effective scale offered in the article to measure their behaviors of service recovery, and improve the management properly to the weak part of service recovery according to the measure result. Second, for the service recovery management, the service enterprises could establish corresponding strategy of service recovery accruing to the empirical result in the article, for example, the relative training aiming at employees’ works of service recovery could be implemented to make service employees could attribute the service failure at the first time, and to make managers could face complaining customers and treat huffish customers by good attitude and recovery mode. In addition, from the empirical result of the research, the service recovery making customer “secondary” satisfaction must depend on the basic employees have the ability to prepare resources to solve service failure, and that needs service enterprises implement proper authorization based on employee ability training, and encourage basic employees to rapidly solve customers’ complaints through establishing corresponding management system and service recovery project, and furthest enhance the interactive relationship between enterprise and customers.

Because the samples of service industry evolved in the article mainly include bank, catering, telecom and supermarket, so the research conclusion may possess certain limitation for other service industries. And though the quantity of sample exceeds the required minimum sample quantity (Nunnally pointed out that it could be accepted that the sample quantity exceed 10 times of measure items (Nunnally, 1978)), so future research could increase the quantity of sample to further validity the empirical result, enhance the quality of the measure scale, and provide guarantees for future customer service recovery satisfaction measure and relative empirical researches.

**References**

- Anderson, Gerbing. (1998). Structural Equation Modeling in Practice: a Review and Recommend two-Step Approach. *Psychological Bulletin*. No.103 (3). P.411-423.
- Bagozzi R P, Yi. (1988). On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Science*. No.16(1). P.74-94.
- Bell, C R & Ridge, K. (1992). Service Recovery for Trainers. *Training and Development*. 1992(May). P.58-63.
- Bell, C R & Zemke, R E. (1987). Service Breakdown: the Road to Recovery. *Management Review*. 1987(October). P.32-35.
- Bitner, M J, Booms, B H & Tetreault, M S. (1990). The Service Encounter: Diagnosing Favorable and Unfavorable Incidents. *Journal of Marketing*. No.54 (January). P.71-84.
- Boshoff, C. (2005). A Re-Assessment and Refinement of RECOVSAT: an Instrument to Measure Satisfaction with Transaction-Specific Service Recovery. *Managing Service Quality*. No.15 (5). P.410-425.
- Boshoff, C & Leong, J. (1998). Empowerment, Attribution and Apologizing as Dimensions of Service Recovery: an Experimental Study. *International Journal of Service Industry Management*. No.9(1). P.24-47.
- Boshoff, C. (1999). RECOVSAT: an Instrument to Measure Satisfaction with Transaction-Specific Service Recovery. *Journal of Service Research*. No.1(3). P. 236-249.
- Boshoff, C & Staude, G. (2003). Satisfaction with Service Recovery: its Measurement and its Outcome. *S.Afr.J.Bus.Manage*. No.34 (3). P. 9-18.
- Bowen, D E & Lawler, E.E. (1995). Empowering Service Employees. *Sloan Management Review*. No.36(summer). P.73-84.
- Brown, S W, Cowles, D L & Tuten, T L. (1996). Service Recovery: Its Value and Limitations as a Retail Strategy. *International Journal of Service Industry Management*. No.7(5). P. 32-46.
- Churchill, Gilbert A and D. Iacobuoci. (2002). *Marketing Research: Methodological Foundation*, 8th ed. Mason, Ohio:South-Western/Thomson Learning,2002.
- Congqing, Yanhong & Wang, Yumei. (2007). An Empirical Research on the Effect of Customer Satisfaction after Recovery on Customer Relationship Continuance. *Journal of Management Sciences*. No.12(6). P. 54-63.
- Fornell, C, Larcker, D F. (1981). Structural Equation Model with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*. No.18(3). P. 382-389.
- Gronroos, C. (1988). Service Quality: The Six Criteria of Good Perceived Service Quality. *Review of Business*. No.9(Winter). P. 10-13.
- Hair, J F, Jr., R E, Anderson, R L. Tatham, W.C. Black. (1998). *Multivariate Data Analysis*.5th Edition. Prentice-hall, Upper Saddle River, NJ., 1998.
- Hou, Jietai, Wen, Zhonglin & Cheng, Zijuan. (2004). *Structured Equation Model and Its Application*. Beijing: Education Science Press. P. 382-414.
- Kanousi, A. (2005). An Empirical Investigation of the Role of Culture on Service Recovery Expectations. *Managing Service Quality*. No.15 (1). P.57-69.
- Lewis, B R & McCann, P. (2004). Service Failure and Recovery: Evidence from the Hotel Industry. *International Journal of Contemporary Hospitality Management*. No.16(1). P. 6-17.
- Lorenzoni, N & Lewis, B R. (2004). Service Recovery in the Airline Industry: A Cross-Cultural Comparison of the Attitudes and Behaviors of British and Italian Front-Line Personnel. *Managing Service Quality*. No.14(1). P. 11-25.
- McCullough, M A & Bharadwaj, S G. (1992). The Recovery Paradox: An Examination of Customer Satisfaction in Relation to Disconfirmation, Service Quality, and Attribution Based Theories, in Allen, C.T. (Ed.), *Marketing Theory and Applications*, American Marketing Association, Chicago, IL., 1992.
- Nunnally, J. (1978). *Psychometric Theory*, 2nd ed., McGraw-Hill, New York, NY. 1978.
- Tax, S S, Brown, S W & Chandrashekar, M. (1998). Customer Evaluations of Service Complaint Experiences: Implications for Relationship Marketing. *Journal of Marketing*. No.62(2). P. 60-67.

Table 1. Results of exploratory factor analysis and confirmatory factor analysis

Variable index	Factor 1(F1) A(B)(C)	Factor 2(F2) A(B)(C)	Factor 3(F3) A(B)(C)	Credit A(B)
Offering satisfactory explanation by employees	0.72(0.76)(0.06)			0.843 (0.860)
Apologizing by managers	0.79(0.70)(0.08)			
Offering additional compensation	0.77(0.73)(0.07)			
Explaining by managers	0.78(0.76)(0.06)			
Asking whether the compensation is satisfactory	0.76(0.76)(0.07)			
We suffer no losses		0.76(0.76)(0.07)		0.805 (0.834)
Admitting service failure		0.73(0.74)(0.06)		
Don't ascribe responsibilities to others		0.74(0.73)(0.07)		
Responding for failure		0.76(0.76)(0.07)		
Solving before asking for instructions layer upon layer			0.54(0.58)(0.08)	0.768 (0.797)
Don't solve the failure by other employees			0.78(0.72)(0.06)	
Could solve problems by himself			0.81(0.84)(0.05)	
One faces and solves the problem			0.82(0.70)(0.05)	
Complaining no transfer among employees			0.56(0.59)(0.08)	
Note: Line A is the result of exploratory factor analysis, line B is the result of confirmatory factor analysis and line C is the standard errors in the confirmatory factor analysis.				

Table 2. Structure validity test

	AVE value	F1	F2	F3
F1	0.552	0.743		
F2	0.557	0.54	0.746	
F3	0.569	0.54	0.45	0.754
Note: From the third line, the number on the diagonal is the arithmetic square root of various AVE values, and the number below the diagonal is the correlative coefficient among factors.				



## Fraud Detection and Audit Expectation Gap: Empirical Evidence from Iranian Bankers

Mahdi Salehi (Corresponding author)

PhD, Assistant Professor, Zanzan University, Zanzan, Iran

D.N. 1, Nagilo Alley, Hidaj City, Zanzan Provenance, Iran

E-mail: Mahdi\_salehi54@yahoo.com

Zhila Azary

Research Staff, Ministry of Agriculture, Zanzan Branch, Zanzan, Iran.

D.N. 194 Shahed 2 Street, 22 Bahman High way, Zanzan City, Zanzan Province, Iran

### Abstract

Our focus in this study is to determine the expectation gap in auditor's responsibility between auditors and bankers in Iran. In the view of fact, the key factor in enhanced credibility is the perception of stakeholders that the external auditors judge to financial statements providing through the management. In recent years corporate scandals were happened, so third parties demand auditors should be as an honest judge. Third parties expect the auditors should have more responsibility to detect fraud. The auditors although they view their role as bringing credibility to financial statements, know because of scope want limitation of their responsibility cannot detect all kinds of fraud. Therefore there is so called gap. Our findings indicate that there is significant gap between auditors and bankers in areas of auditor's responsibilities to detection fraud and illegal acts. In this study, the authors came to conclusion that the bankers have reasonableness expectation gap from auditors.

**Keywords:** Auditor, Responsibility, Fraud Detection, Audit Expectation Gap

### 1. Introduction

As we enter new millennium, the recipients of financial statements have become a far sophisticated and informed group. The demand more from an audit function than a mere attestation with regard to auditor responsibility still be account for, furthermore during the last years, there has been a great number of accounting scandals throughout the world; most recent among them are; Enron, WorldCom, Parmalat, and Fannie Mae. These scandals have seriously damaged the confidence in financial reporting, because of fraud. After these huge number of scandals had profound impact on the profession, leading to the disbanding of the Public Oversight Board (Mulligan, 2002) and the collapse of Arthur Andersen, one of the world's largest accounting firms (Bayer). New legislation (e.g. Sarbanes —Oxley Act of 2002) and a new oversight board are just a few of the effects of these scandals.

The primary responsibility of an auditor is to verify whether the financial statements exhibit a true and fair view of state of affair of the business and their secondary responsibility is the prevention and detection of errors and frauds. The primary responsibility for the prevention and detection of fraud and error rests with both those charged with governance and the management of an entity in spite of the fact that financial statements are the representations of the management. While discharging their duties in accomplishing these two audit objectives, there are also other responsibilities that emerge for the auditors to perform.

Fraud involves misallocation of resources or distorted reporting of the availability of resources, so this contradicts the elements of sound and prudent management. In addition, these failures have focused attention on auditors' ability and incentives to detect management fraud. Audit failures arising from management fraud are largely responsible for efforts by regulators, legislators and accountants themselves, to require the accounting profession to accept more responsibility for evaluating and reporting on clients' and internal controls. Although the third party emphasize that auditor must be detect of kinds of fraud, the auditors thinking in other ways; they believe that is not their duty the detect fraud; so, there is a gap, between auditors and third parties.

Our objective in this study is to determine expectation gap between auditors and bankers in Iran. For achieving this goal, we do a survey study based on questionnaire. In the first section, we deal with the history of auditing in Iran. Second section deals with dimensions of fraud. In third section the literature review is presented. In forth section, we deal with

methodology and finally we present results obtain and conclusion in the fifth section.

## **2. History of Auditing in Iran**

Pursuant to the Islamic revolution of Iran in 1979, according to a bill ratified by the Revolutionary Council, many enterprises were confiscated or became under direct supervision of Government. To audit and perform statutory examination of these enterprises, three audit firms were established in the public sector, i.e., Nationalized Industries and Plan Organization Audit Firm 1980, Mostazafan Foundation Audit Firm 1981, Shahed Audit Firm 1983.

In 1983 an act was ratified by the Parliament, to merge and embody these three audit firms together with Audit Company (established in 1971 to audit government corporations) to establish Audit Organization. Audit Organization's by-laws was also approved by the Parliament in 1987 and the Organization established as a legal entity, with financial independence affiliated to the Ministry of Economic Affairs and Finance to follow those audit firms functions and pursue the activities legislated in the Organization's Act and by-laws.

Audit Organization's by-laws were revised and approved by the Council of Ministers in 2003 to comply with the Article 4 of the Third Economic, Social and Cultural Development Plan and the Organization's legal status changed to State Owned Limited Company.

### *2.1 Objectives*

The Organization's main objectives are:

To provide government with basic needs in the field of auditing and specialized financial services for state owned and government supervised entities;

To set Accounting and Auditing Standards and Professional Ethics in compliance with Islamic Rules as well; and

Research in scientific and practical methods of accounting to enhance accountancy compatible with country's needs.

#### *2.1.1 Auditing Standards - Due Process*

Due process of Auditing Standard is as following:

Deciding on a subject for research. The Auditing Standard Setting Committee decides on the topics to be considered by Standard Setting Development.

Preliminary studies. After deciding on the subject, necessary research and studies are commenced by the Advisors of Standard Setting Department. In this phase, the standards of other countries like USA, UK, Australia and Canada, International Auditing Standards, research carried out in relation to the subject, accounting practice in Iran and the law and all issues relating to the subject are recognized, collected and studied. The result of this phase is presentation of study reports.

Deciding on necessity of a standard development. The Standard Setting Committee decides on the necessity of development of a standard based on the result of preliminary studies.

Preparation of primary draft. If the Auditing Standard Setting Committee requires the standard development, the advisory group prepares a primary draft based on study reports, after field studies and some meetings with professionals and constituents. One of the main policies of Auditing Standard development is compliance with International Auditing Standards. Therefore, concerning the subject on which there is an International Auditing Standard, this International Auditing Standard is used as the main basis for the standard development. The outcome of this phase is the primary standard draft.

Development of standard draft. In this phase, the Auditing Standard Setting Committee presents the final standard draft, after deep and broad reviews and necessary amendments. The outcome of this phase is the standard draft.

Public comment. For public comment, any standard draft is made available to the public by different ways like publishing in professional journals, Internet (Organization Site), etc. Also, according to the subject nature, the standard draft is separately sent to some authorities.

The opinions received in respect of the standard draft is concluded and presented to the Auditing Standard Setting Committee by the Standard Setting Department. The Committee amends, if necessary, the standard draft and after approval by the Technical Committee, the revised standard draft is presented to the Board of Executive of the Organization.

Ultimate approval, the final statement will be published when the Board of Executive and Board of Governor of the Organization approve the final text of the standard. The board reviews the Auditing Standard and after possible amendments approves and sends them to the Board of Governor of the Organization for the ultimate approval. After approval by the Board of Governor, the final text of the Auditing standard is published and becomes operative.

Insert chart 1

### 2.2 Association of Certified Public Accountants (IACPA)

By formation of Accounting Organization in 1987, the case of auditing the accounts of companies and financial institutions, founding professional accountancy system, the how of formation and limits of nongovernmental audit practices had been left undetermined? To satisfy this need, 'the Act of enjoying the specialized and professional services of recognized accountants as Certified Accountants' was passed through the Majlis (Islamic Consultative Assembly) in 1993. This act authorized the government to financially monitor production, commercial and service corporations and make sure that their financial statements were reliable and correct enough to maintain public interests. In 1995, 'Regulation of Assessing Certified Accountants' Competence and Selecting them, was approved by the Cabinet, and subsequently a committee to assess the Certified Accountants' competency was set up and introduced by the Minister of Finance and Economy.

In early 1996, upon enforcing the regulation of assessing the Certified Accountants' competence, the Ministry of Finance and Economy assigned a mission of ten members, seven of whom were from the assessing group and three from other accountants, as the first Certified Accountants to produce a comprehensive statute and introduce it to the Cabinet for approval in a six month period. This statute was produced in the due time, and in September 1999 it was handed in to the Cabinet.

### 3. The dimensions of fraud

Most of the research concerning fraud focused on so-called red flags which are defined as conditions that indicate potential fraud by management or others, with deliberate skills; Furthermore, several frauds reported in the last few decades have led to impair audit practice and audit financial statements.

Fraud, as it is currently defined in accounting standards, reports "an intentional act that results in a material misstatement in financial statements that are the subject of an audit" (AICPA, 2003). There are two ways in which a material misstatement could occur with respect to fraud: misappropriation of assets and fraudulent financial reporting. Misappropriation of assets, as the name suggests, refers to the theft of company assets that may result in the company's financial statements being materiality misstated (AICPA, 2003). According to IFAC (1977) fraud may involve:

Misappropriation of assets;

Suppression or omission of the effect of transactions from records or documents;

Recording of transactions without substance, and

Misapplication of accounting policy.

According to prosser (1971) the elements of fraud as follows:

False representation of a material fact; and

Representation made with knowledge of its falsity.

According to an editorial of Fortune (1978) reported that increased time pressure has led independent auditors to do shopping in their audits. Out of 1,100 practitioners, 58 percent had indicated that they had signed off on a required audit step without completing the work or noting the omission. However, the absence of controls neither constitutes a material weakness in the accounting system, nor in auditing practice great frauds. In such cases management fraud may occurs that damaged company's financial management as well as audit practice. According to Kapnick (1980), management fraud stems from improper actions of management normally accompanied by false documentation of transactions or with holding of relevant information, resulting in a material impact on the financial statements and in financial detriment to shareholders a person acts in the representation; and the person acting is damaged by his or her reliance. According the Elliot and Willingham (1980), financial fraud is the deliberate fraud, committed by management that injures investors and creditors through materiality misleading financial statements. According to Flesher (1996), fraud means dishonesty in the form of intentional deceptions or a willful misrepresentation of fact.

Albrecht (1996) states every fraud consists of three elements:

(1) Theft act, which involves taking cash, inventory, information, or other assets manually, by computer, or by telephone.

(2) Concealment which involves the steps taken by the perpetrators the hide the fraud from others; and

(3) Conversion, which involves selling or converting stolen assets into cash and then spending the cash.

According to Ramos (2003), fraud may occur because of three main resources namely: incentive, opportunity and, rationalization.

Insert chart 2

(I) Incentive/pressure: in this position management or other employees may have an incentive or be under pressure, which provides a motivation to commit fraud as follows:

1-Business pressures:

To reach budgets, meet targets;

Maintain status as high flier in organization;

To prop up failing ventures or weak contracts; and

To get new funding.

2-Personal pressures:

Financial problems or extravagant life style; and

Drug or gambling habits-greed-not wanting to admit to problems.

(II) Opportunity: circumstances exist, for example, the absence of controls, ineffective controls, or the ability of management to override controls that provide an opportunity for fraud to be perpetrated and some other position listed below:

Decentralization or reorganization of companies;

High volume of major transactions;

New and complex productions;

Access to credit;

No real deterrent;

Little chance of discovery; and

Grey areas in the rules.

(III) Rational/Attitude: those involved in a fraud are able to rationalize a fraudulent act as being consistent with their personal code of ethics. Some individuals possess as attitude, character or set of ethical values that allows them to knowingly and intentionally commit a dishonest act such as:

Management don't care;

Everyone else doing it;

No-one gets hurt;

I am only taking what is due to me;

Insurance will pay; and

Only borrowing.

Ramos (2003) listed the following examples of management fraud and their underlying reasons:

- Misappropriation of assets;
- Reporting inflated assets values on operating results so that those perpetrating the fraud can retain their positions;
- Increasing their remuneration;
- Improper use of assets to the benefit of management;
- Enhancing the holding of company stock;
- Over statement of assets or under statement of liabilities to present a favorable financial position or results of operations;
- The siphoning off the assets through transactions with affiliated entities;
- Kickbacks and other irregular transactions between officers and outside parties; and
- Lack of disclosure of significant information

Sawyer (1988) believes that three conditions under which fraud exists are attributed to the environment set by management.

(1) Situational pressures experienced by employees of enterprise;

(2) Uncontrolled access to assets, coupled with managements indifference; and

(3) Personal trait undermining personal integrity.

He lists eight reasons behind management fraud:

- (1) Executives sometimes take rash stops from which they cannot retreat;
- (2) Profit centers may distort facts he held off divestment;
- (3) Incompetent managers may deceive in order to survive;
- (4) Performance may be distorted to warrant large bonuses;
- (5) The need to succeed can turn manager to deception;
- (6) Unscrupulous managers serve interests which conflict;
- (7) Profits may be inflated to obtain advantages in the market place; and
- (8) The one who controls both the assets and their records in a perfect position to falsify the records.

#### **4. Fraud and audit expectation gap: some empirical evidences**

A critical issue relating to auditor responsibility lies in defining as auditor's obligation to detect and report frauds or irregularities committed by clients' employees or management (Lys and Watts, 1994).

In general, the purpose of the audit practice is to enable them to express an opinion whether the accounts presented, show a true and fair view. Therefore, the object of an audit is to ensure that the accounts on which the auditor is reporting show a true and fair view and are not misleading. The general public appears to have a high expectation that auditors will detect or prevent all frauds, in other words, third parties believe that auditors must assume a responsibility beyond examining and attesting the fairness of financial statements and shoulder a direct obligation to protect the interest of the audit beneficiary through detecting and reporting frauds as irregularities (Sikka et al, 1992).

In the view of the fact, third parties desire external auditor who to able to certify as to the accuracy of the accounts presented, so in this condition they want that the object of an audit may be said as follows:

- (1) The detection of fraud;
- (2) The detection of technical errors; and
- (3) The detection of errors of principle.

In short, third parties are thinking without fraud detection there is no use in audit practice whereas; the auditing profession believes its responsibilities are limited to planning the audit so that there is a reasonable expectation of detecting material fraud. However, the auditors are litigating that the, detect of fraud is neither economical nor the duty of auditors whereas, the other party looking for absolute assurance in audit practice,

therefore there arise so-called expectation gap. The expectation gap is the difference between what users of financial statements, the general public perceives an audit to be and what the audit profession claim is expected of them in conducting an audit (Ojo, 2006). The general public appears to have a high expectation that auditors will detect or prevent all fraud, whereas the auditing profession does not agree fraud detection as primary audit objective. Thus there is an expectation gap whereby the general public believes that the auditor should be responsible for attempting to detect all fraud. In the view of the fact, the frequent scandals were made to the biggest component of the audit expectation gap being auditors' perceived incapacity to detect fraud and warned impending corporate collapses. The fraud expectation gap refers to the public's expectation that auditors will detect fraud, and report on if it exists, whereas auditors do not accept that they have a primary responsibility to detect fraud. So far, several studies became to the conclusions that the auditors should be blamed for not meeting users' expectations. Although the auditors had been asked to detect errors or frauds (Brief, 1975), the profession's refusal of performing the fraud detection duties had fueled the expectation gap (Hooks, 1992). The professionals still, attempting to avoid fraud detection responsibility to protect their self-interest.

#### **5. Review of literature**

In recent years academics and professionals have focused on expectation gap especially regarding the effect of fraud on expectation gap. The main function of audit expectation gap is to detect fraud (Salehi and Nanjegowda, 2006). According to Baron et al. (1977) who conducted a questionnaire survey in the US to elicit views within the financial community on two major issues;

- (1) The auditor's responsibilities for detecting corporate irregularities and illegal acts; and
- (2) The auditor's responsibility for disclosing irregularities and illegal acts. The results revealed that auditors and other parties (financial analysts, bankers, and managers) have significantly different believes and preference on the extent of auditors' responsibilities for detecting and disclosing irregularities and illegal acts. In particular, users held auditors to be more responsible for detecting and disclosing irregularities and illegal acts than the auditors believed themselves to be. Lowe and Pany (1993) surveyed 141 members of a municipal court juror's pool and 78 auditors from a large international accounting firm to assess their attitude toward the auditing profession. The result of the study reveals an

expectation gap. The jurors view the auditors' role as that of a public watchdog or guardian to the extent of expecting the auditor to actively research out the smallest fraud. Auditors disagree with this characterization of their task.

Epstein and Geiger (1994) conducted a survey of stock investors that revealed a startling evidence of the expectation gap between the assurances auditors provided the financial statements compiled by management and the expectation of investors and other users of financial statements. Over 70 per cent of the 246 investors surveyed believe that auditors should be held responsible for detecting material misstatements due to fraud, and some 47 percent expect auditors to provide absolute assurance the financial statements contain no material misstatement due to errors. In the UK, Humphrey et al (1993) examined the expectation gap by ascertaining the perception of individuals of audit expectations issues through the use of a questionnaire. The issues investigated including the following questions. What is and should be the role of the auditor? What should be the prohibitions and regulations placed on audit firms? And what decisions could auditors be expected to make? The respondents included chartered accountants, corporate finance directors, investment analysts, bank lending officers, and financial journalists. The survey revealed significant difference between auditors and the respondents in their views on the nature of auditing. The results confirmed that an audit expectation gap exists, specifically in areas such as the nature of the audit action and the perceived performance of auditors. The critical components of the expectation gap were found to include auditors' fraud detection role and the extent of auditors' responsibilities to third parties.

McInnes (1994) reviewed Gloeck and Jayer's (1993) study on the audit expectation gap in the Republic of South Africa and found three areas namely, independence of auditors, role of auditors relating to fraud and going concern issues in which an expectation gap exists between auditors and non-auditors.

Low (1984) conducted a survey amongst auditors and analysts in Singapore and in Australia revealed that in both countries, significant differences in perceptions were found in areas regarding the extent of assurance over fraud detection and the reliability of information presented in audited financial statements. Another survey conducted by Low et al (1988), who surveyed a sample of auditors and financial analysts in Singapore regarding their perception of objectives of company audits. Participants were provided with a list of 13 potential objectives. Significant differences and expectation gaps were found in the areas of fraud prevention, guaranteeing the accuracy of financial information, effective utilization by the company of government grants, levies and subsidies, and management. A study by Best et al (2001) sought to determine the level and nature of the expectation gap in various areas of auditor responsibility. They gather information through the questionnaire and participants were auditors, bankers, and investors. Their results indicated a wider expectation gap in the areas of the auditor's responsibility for preventing and detecting fraud, maintenance of accounting records, and selection of appropriate auditing procedures. MC Enroe and Martens (2001) surveyed public accountants and individual investors to determine the extent to which the expectation gap exists for various facets of the attest function found investors have higher expectations than auditors in the areas of disclosure, internal control, fraud and illegal operations. Another survey carried out by MC Enroe and Martens (2002) by comparing audit partners' and investors' perceptions of auditors' responsibilities involving various dimensions of the attest function. The results revealed that an expectation gap currently exists: investors have higher expectations for various facts and assurances of the audit than do auditors in the following areas: disclosure, internal control, fraud, and illegal acts. It was also found that investor expect auditors to act as public watchdog. Koh and Woo (2001) investigated the audit expectation gap between auditors and management and found a significant gap, which management expecting more than auditors in the areas of preventing and detecting fraud, illegal acts, errors, and in guaranteeing the accuracy of financial reports. Study conducted by Fadzly and Ahmad (2004) regarding several dimensions of expectation gap in Malaysia. Questionnaire instrument were used for information collecting and participants were auditors, bankers, brokers, and investors. The results revealed evidence of expectation gap in Malaysia from the viewpoint of auditors and other participants, particularly on issues of concerning auditor's responsibilities. A wide gap was found regarding auditor's responsibilities in fraud detection and prevention, preparation of financial statements and accounting records. The gap was also found with regard to auditor's scope of legal responsibility in a fraud related business failure. More recent survey conducted by Alleyne and Howard (2005), between auditor and users around the responsibility of auditor for fraud detection through interview in Barbados. The results revealed that there is a wide expectation gap between auditors and users for fraud detection. The auditors strongly disagreed that they were responsible for uncovering fraud compared to the users' strong view that they should be responsible.

A survey conducted by Beelde et al. (2005) relating to audit expectation gap in Belgium. Participants were auditors, bankers, and managers. The results revealed that there are significant differences between auditors and other parties in several fields such as going concern, auditor role, and auditing process, liability of auditors to third parties, and fraud detection and prevention. In addition results revealed that there is an expectation gap with regard to the attributes detecting and preventing errors'. 89% of the auditors were convinced that they are good at detecting errors, but only 78% of the managers and 62% of the bankers agree with this. 63% of the auditors were of the opinion that auditors are of the opinion that they are good at preventing errors, but it must be emphasized that some 5% of the auditors are of the opinion that this is not revealed. 44% of the managers believed that auditors were good at this, 26% believed that they

achieved an average result and 29% was of the opinion that they were bad at it. Only 1% was of the opinion that this is not part of the job responsibilities of an auditor. The results by the bankers are as follows: 29% good, 22 % average, 42% bad, and 7% not relevant.

In recent years few researches conducted related to auditing practice in Iran, which in this area it seemed more researches should be conducted.

A questionnaire survey carried out by Nikkhah-Azad and Mojtahedzadeh,(1999) regarding to auditors responsibilities in Iran ,which results revealed that the third parties emphasizing the auditors should be responsible on areas of detection of fraud, detection of illegal acts and responsibility to reporting overriding of regulation.

A questionnaire survey carried out by Hassas-Yeganeh and Khaleghi (2004) in Iran regarding attest function of independent auditors, between auditors and investors which the results showed that there is expectation gap between auditors and users on the attestation role of independent auditors. The results showed that there are significant differences between auditors and users regarding to reliability of audited financial statements, and also significant differences between auditors and users regarding to comparability of audited financial statements. Users believed that if the audited financial statements re-audited by others it will show different picture

## 6. Methodology

Since our main objective in this study is to test whether there is significant expectation gap between auditors and bankers in business environmental of Iran, so for accurate answer to this question, we design and develop a questionnaire based on method used in Chowdhury et al (2005),Fadzly and Ahmad(2004), and Best et al. (2001). The questionnaire used in the study includes two sections. The first section consist demographic information of the respondents and five statements about importance of auditing and financial reports. The second section includes 13 statements on the fraud and audit responsibilities regarding to illegal acts. The statements number 2, 3,7,12 and 13 are related to fraud and statements number 1, 4,5,6,8,9,10 and 11 are related to illegal acts. The measure instrument of the statements is a five-point likert type scale anchored "strongly disagree" (1) and "strongly agree" (5).

To test for the significant expectation gap between the parties of respondent, we employ Mann-Whitney U test. The test is chosen because it is especially valuable in dealing with ordinal data.

## 7. Results

In this section, the authors report the empirical findings of the statistical analysis for the auditor responsibility and audit expectation gap. For this purpose, 227 questioners from auditors and 261 questioners from bankers were collected in Tehran on the date of 2006. The all-statistical analyses were performed with the SPSS package software.

### 7.1 Demographics of respondent groups

The tables 1, shows that from 227 auditors are 78% graduate, 21% master, and almost 1% PhD qualification, whereas from 261 bankers 90% have graduate, and 10% master qualification. According to this table, the auditors have higher auditing and accounting education than bankers.

Insert table 1

With regard to Table 2, 98% auditors and almost 60% bankers passed auditing courses. Also 100% auditors have accounting and auditing experience, while as the table shows 55% bankers have accounting and auditing experience.

Insert table 2

### 7.2 Results from belief of respondent groups

Table 3 shows some information regarding to audit importance between auditors and bankers, which according to this Table 80% auditors strongly agree with importance of reading auditing report, while almost 50% bankers have same believe.

Insert table 3

According to this table from the viewpoint of bankers, audit report has less importance, rather than financial statement. Responds to the second question of this table support this claim that banker's has less attention to audit report. According to third question of the table, from the view point of bankers and auditors, both have higher believe the financial statements are very important, in other words 82.5% auditors and 69% bankers strongly agree that the financial statements are very important.

According to statements 4 and 5 revealed that auditors and bankers both strongly believe to importance of company and director profiles. This table shows almost 79% auditors and 77% bankers strongly agree with the importance of company profile, 73.6% auditors and 79% bankers strongly agree that director profile is very important.

Analysis of thirteen questions about auditors' responsibilities is shown in the table 4, which in this table for each groups as well as question analyzed Mean, Median and Std. Dev. This table revealed results of statistical analyses they are as

follows:

Insert table 4

According to statement No.1, the Table shows that there is a significant difference between auditors and bankers. According to the table V, 79% auditors believes that the auditors do not have major role in producing financial statements, whereas just 12% bankers have same believe. In the other words more than 82% bankers strongly agree that auditors should play more roles in producing of financial statements. Statement No.2 and 3 revealed there is a significant difference between auditors and bankers, which according to table V, 70% auditors disagree to prevention and detection fraud and errors whereas, 70% bankers strongly agree that the auditors are responsible to presentation as well as detection of fraud.

Statements No.4 analyses of this statement revealed that there is a significant difference between auditor and bankers, which 61% auditors disagree with this statements, while 19% bankers disagree with this statement. In other words the auditors believe that the conducting of 100% examination in audit procedure nor economical neither feasible.

Statement No.5 result revealed that there is a significant difference between auditors and bankers which 87% auditors strongly agree, while 61 % bankers agree with this statement.

Statement No.6, as indicates in the table, there is a significant difference between two parties. In other words 40% auditors and 66% bankers agree with certifying accuracy of financial reports.

Statement No.7 indicates that there is a significant difference between two parties. The result shows that 55% auditors disagree with this statement. Furthermore 66% bankers agree with this statement.

Statement No.8 reveals that 53% auditors disagree with effectiveness of internal control on audit quality, while 67% bankers strongly agree with this statement; therefore there is a significant difference from the viewpoint of auditors and bankers.

Statement No.9: The result of Table 4 shows that there is no significant difference between auditors and bankers, mainly 83% auditors and 72% bankers strongly believe that the managers are responsible to maintaining accounting records.

Statement No.10 shows that there is a significant difference between auditors and bankers, in other words 54% auditors disagree with safeguarding the assets of the company; whereas 69% bankers strongly agree with the statement, furthermore just 15% bankers disagree with statement.

Statement No.11: As a Table 5 shows that there is a significant difference between two groups, which result shows 83% auditors agree on detecting illegal acts by the management, while 67% bankers agree with this statement.

Statement No.12: as result shows regarding reporting all detected frauds and thefts to the relevant authority, there is no significant difference between two parties based on table IV. With regard to table V, 82% auditors and 71% bankers have a same idea regarding to the Statement No.12. In other words both parties strongly believe that the auditor should and must report all fraud and thefts detected to all relevant authority.

Statement No.13: As it shows in table 4, there is a significant difference between tow parties, which according to Table V, 55% auditors disagree with this statement, while just 20% bankers disagree with this statement, by the way 38% auditors and 64% bankers agree with that the auditor is responsible for detecting any deliberate distortion of financial information.

## **8. Conclusion**

The main objective of this study is to find out empirical evidence of expectation gap between auditors and bankers in business environmental of Iran. For this propose, we did a survey study based on questioner. The findings indicate that there is deeply expectation gap between auditors and bankers. The results show that bankers are unawares of auditing functions. Firstly, they expect that auditors should play more roles in producing the financial statements. Secondly, the bankers believe seriously that prevention and detection of fraud is a part of auditor's responsibilities. Moreover the bankers are willing to accept more responsibility of detecting illegal acts by the auditors than by the management. Thirdly, the auditors don't lie on internal control while they are conducting auditing practices because in Iran internal auditors in any company work directly under the top manager, so the internal auditors don't have adequate independence. Finally, although auditors and bankers have deferent belief as mention above, the findings indicate that they have same expectation on areas of maintaining accounting records by management, reporting all detected fraud and illegal acts to authority by auditors.

The authors came to conclusion in the study that the bankers have reasonable expectations from auditors, in other words, the Iranian auditors practicing according the Iranian regulation and they have limit responsibility to detection fraud and illegal acts.

For reducing such a gap, more communication is needed between auditors and third parties, mainly the bankers. Since the bankers are unawares a bout auditor responsibilities as well as limitation, if auditors have more and better

communication with own third parties it will be reduce such a gap.

## References

- Albrecht, W.S. (1996). Employee Fraud, Internal Auditor, October, p: 26.
- Alleyne, P and Howard, M. (2005). An Exploratory Study of Auditors' Responsibility for Fraud Detection In Barbados. *Managerial Auditing Journal*, Vol.20, No.3, pp: 284-303.
- American Institute of Certified Public Accountants (AICPA). (2003). Consideration of Fraud In Financial Statement Audit. Statement On Auditing Standards No.82, New York.
- Baron, C.D, Johnson, D.A, Searfoss, D.G and Smith, C.H. (1997). Uncovering Corporate Irregularities: Are Closing The Expectation Gap"? *Journal of Accountancy*, Vol.144, October, pp: 243-250.
- Bayer, J. A. (2002). Fall From Grace: Joe Berardino Presided Over The Biggest Accounting Scandals Ever And The Demise Of a Begendary Firm. Here's What Happened. *Business Week* 3795(August12), p. 50.
- Beelde, D.I, Cooper, S and Leydens, H. (2005). Expectations Of users Of Financial Information With Regard To The task Carried Out By Auditor", available at: [www.Feb.ugent.be/fac/research/WP/Paper/WP\\_99\\_75.pdf](http://www.Feb.ugent.be/fac/research/WP/Paper/WP_99_75.pdf)22No2005
- Best P.J, Buckby, S and Tan, C. (2001). Evidence Of The Expectation Gap In Singapore. *Managerial Auditing Journal*, Vol.16, No.3 pp: 134-144.
- Brief, R.P. (1975).The Accountant's Responsibility in Historical Perspective. *The Accounting Review*, April, pp:285-297.
- Chowdhury,R ,Jnnes , J and Kouhy , R.(2005). The Public Sector Audit Expectation Gap in Bangladesh. *Managerial Auditing Journal*.Vol.20,No.8,pp:893-908.
- Elliot, R.K and Willingham J.G. (1980). Management Fraud: Detection and Deterrence, Petrocelli Book New York.
- Epstein .M J and Geiger, M. A. (1994). Investor Views of Audit Assurance: Recent Evidence Of The Expectation Gap. *Journal of Accountancy*, Vol.177, January, pp: 60-66.
- Fadzly, N.M and Ahmad, Z. (2004).Audit Expectation Gap: The Case Of Malaysia. *Managerial Auditing Journal*, Vol.19, No.7, pp897-915.
- Flesher, D.L (1996). Internal Auditing-Standards and Practices, The Institute Of Internal Auditors, Altamonte Springs, FL.
- Foutune. (1978). *Editorial*, July, Vol.17, p: 95.
- Gloeck J D and Jager, H. (1993). The Audit Expectation Gap in The Republic Of South Africa. Working Paper, School of Accountancy , University Of Pretoria.
- Hassas-Yeganeh,Y and Khaleghi, A. (2004).The Expectation Gap Of Independent Audit Attest Function, Between Auditors And Their Report Users. *The Iranian Accounting and Auditing Review* ,Vol.11,No.35,pp:29-44.
- Hooks, K.L (1992). Professionalism and Self-Interest: a Critical View of The Expectation Gap. *critical Perspectives of CPA Practices*, The CPA Correspondence in China, No.6, pp: 24-30.
- Humphry, C G, Moizer, P and Turley W.S. (1993). The Audit Expectation Gap In Britain: An Empirical Investigation. *Accounting and Business Research*, Vol.23, Summer, pp: 395-411.
- International Federation Of Accountants Committee (IFAC). (1997). Handbook, Technical Pronouncement. US
- Kapnick, H. (1980). Responsibility And Detection in Management Fraud, Reading and Cases in Auditing, Dame Publications, Houston, TX.
- Koh, H and Woo, E. (2001). The Auditor-Manager Expectation Gap in Auditing. *Managerial Auditing Journal*, Vol.16, pp: 176-188.
- Low A M, Foo S and Koh, H C. (1988). The Expectation Gap Between Financial Analysts And Auditors: Some Empirical Evidence. *Singapore Accountant*, Vol.4, May, pp: 10-13.
- Low, AM (1984). The Audit Report: Time for a Change? *Singapore Accountant*, pp: 17-21.
- Lowe, D.J and Pany, K (1993). Expectation of the Audit Function. *CPA Journal*, Vol.63, August, p: 58.
- Lys, T and Watts, R.L (1994). Lawsuits against Auditors. *Journal of Accounting Research*, Vol.32, pp: 65-93.
- MC Enroe, J E and Martens, S.C. (2002). Taxman, March, Vol.9, pp: 236-251.
- Mc Enroe, J.E and Martens S.C. (2001). Auditor's And Investor's Perception of the Expectation Gap. *Accounting Horizons*, Vol.15, No.4, pp: 345-358.

Mc Innes, W M. (1994). The Audit Expectation Gap in The Republic Of South Africa. *Accounting and Business Research*, Vol.24, Summer, pp: 282-283.

Mulligan, T.S. (2002). Accounting Watchdog Reiterates it will Disband. Los Angeles Times, February.C4.

Nikkhah-Azad,A and Mojtahedzadeh,V.(1999). An empirical Examination Of Users’ Perceptions Of The Independent Auditor’s Areas Of Responsibilities With Respect To Financial Statements : A Comparative Study. *The Iranian Accounting And Auditing Review*,Vol.7, No.27, pp:1-70.

Ojo, M. (2006). Eliminating the Audit Expectation Gap: Reality or Myth? Available at: <http://mpa.ub.uni-muenchen.de/232/>.

Prosser, W.L. (1971). Hand Book of The Law of Torts, West Publishing, ST Paul MN.

Romas, M. (2003). Auditor Responsibility for Fraud Detection. *Journal of Accountancy*, January, pp: 28-36.

Salehi, M and Nanjegovda, K. (2006). Audit Expectation Gap: The Concept. *Journal of Audit Practice*, Vol.3, No.4, pp: 69-73.

Sawyer, L.B. (1988). Internal Auditing, The Institute of Internal Auditors, Altamonte Springs. FL.

Sikka, P Puxty, T Willmott, H and Cooper, C. (1992). Eliminating the Expectation Gap, London: ACCA.

Chart 1: Auditing Standards - Due Process

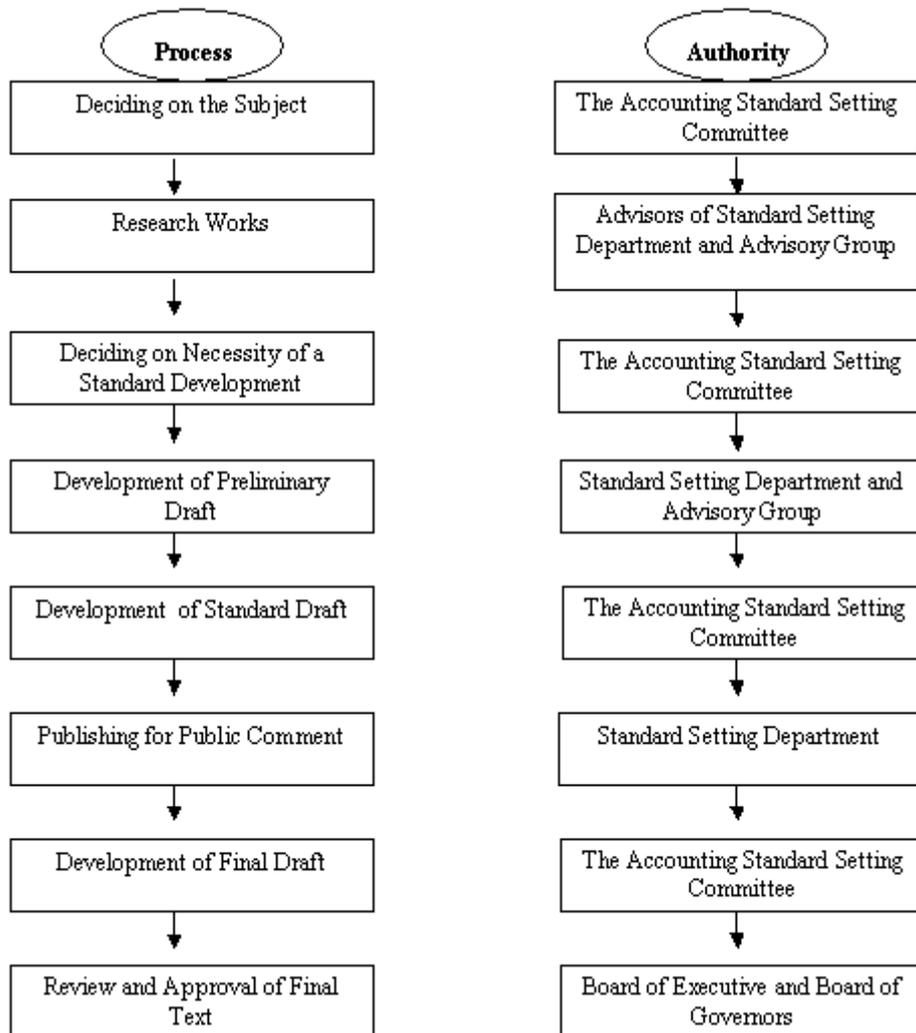
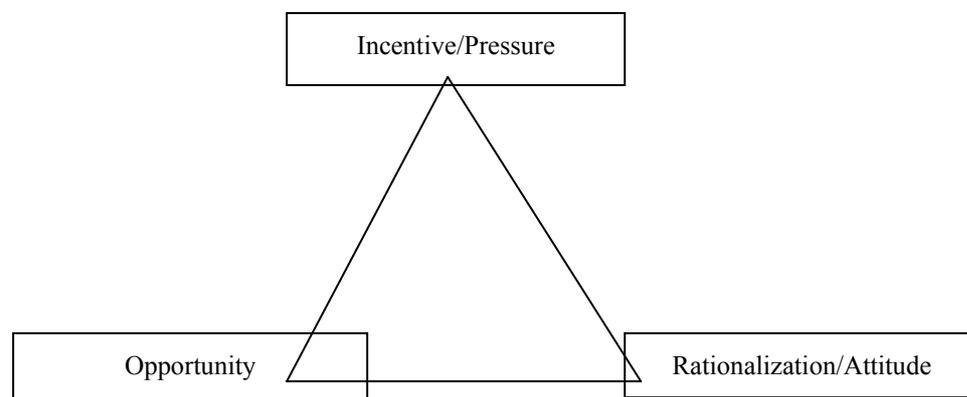


Chart 2: resources of fraud



Source Ramos (2003)

Table 1. Respondent qualification

Qualification	Auditors		Bankers	
	Frequency	Percent	Frequency	Percent
Graduated	178	78	236	90
Master	47	21	25	10
PH.D	2	1	0	0
Total	227	100	261	100

Table 2. Auditing and accounting knowledge

Auditing and accounting knowledge	Auditors		Bankers	
	Yes	No	Yes	No
Auditing Study	98%	2%	60%	40%
Auditing & Accounting Experience	100%	0%	55%	45%

Table 3. Importance of auditing and financial reports

Statements		Auditors			Bankers		
		Low	Average	High	Low	Average	High
1	importance of reading auditing report	7.5	11.9	80.6	26.8	23.4	49.8
2	importance of auditing report	9.7	16.7	73.6	25.3	19.9	54.8
3	importance of financial statements	3.0	14.5	82.5	9.2	21.8	69.0
4	importance of company profile	3.5	17.6	78.9	5.3	17.7	77.0
5	importance of director profile	8.8	17.6	73.6	5.4	15.7	78.9

Table 4. Statistical result of fraud and illegal act

Statement	Auditors			Bankers			Total			Z	p
	Mean	Median	St. D	Mean	Median	St. D	Mean	Median	St. D		
1	2.44	2	1.19	4.01	4	1.14	3.276*	3	1.401	-12.29	0.000
2	1.56	1	1.13	3.82	4	1.35	2.772*	3	1.683	-14.56	0.000
3	2.35	2	1.06	3.54	4	1.54	2.985*	3	1.462	-9.13	0.000
4	1.87	1	1.46	3.43	4	1.45	2.7*	3	1.649	-10.21	0.000
5	4	4	0.61	3.34	4	1.45	3.645*	4	1.180	-4.77	0.000
6	3.28	3	0.82	3.59	4	1.41	3.444*	3	1.179	-5.02	0.000
7	2.56	2	1.09	3.6	4	1.50	3.114*	3	1.424	-8.54	0.000
8	2.6	2	1.08	3.51	4	1.47	3.086*	3	1.381	-8.22	0.000
9	3.93	4	0.78	3.59	4	1.57	3.74	4	1.273	-0.31	0.759
10	2.6	2	1.10	3.67	4	1.42	3.17*	3	1.397	-8.83	0.000
11	4.55	5	1.08	3.59	4	1.60	4.038*	5	1.460	-8.30	0.000
12	3.81	4	0.89	3.62	4	1.56	3.71	4	1.293	-1.42	0.155
13	1.91	1	1.50	3.56	4	1.54	2.788*	3	1.726	-10.45	0.000

Note: \* Significantly different from Auditors at  $p \leq 0.01$  (two-tail test)

Table 5. percentage of respondent groups

Statement	Auditors					Bankers				
	1*	2	3	4	5	1	2	3	4	5
1	29	50	2	5	14	2	10	13	32	44
2	56	16	5	12	11	5	9	14	31	42
3	20	50	5	15	11	10	10	12	32	37
4	51	5	11	18	15	9	10	16	39	26
5	2	2	9	68	18	9	10	19	39	22
6	4	3	53	21	19	9	8	19	30	33
7	3	52	8	20	17	11	7	16	27	39
8	2	51	13	19	15	7	8	18	36	31
9	3	5	9	65	18	11	7	11	33	39
10	1	53	9	19	18	9	6	15	33	36
11	5	4	9	16	67	10	9	14	23	44
12	4	5	10	67	15	9	7	13	29	42
13	54	1	7	19	19	11	9	15	25	39

\*strongly disagree=1, disagree=2, moderately agree=3, agree=4, strongly agree=5

Table 6. Statements

No	Statement
1	Producing the financial statements
2	Prevention of frauds and errors
3	Detection of frauds and errors
4	Conduct of 100 percent examination in audit proceed
5	Right procedures followed before authenticating financial statements
6	Certifying accuracy of financial reports
7	Giving assurance that company is in good financial health
8	Effectiveness of internal control on audit quality
9	Maintaining accounting records by the management
10	Safeguarding the assets of the company
11	Detecting illegal acts by the management
12	Reporting all detected frauds and thefts to the relevant authority
13	Detecting any deliberate distortion of financial information



# Enterprise Patent Strategy and Development of Guangxi Sugar Industry

Jun Hong & Hao Wu

Guangxi University, Guangxi 530004, China

Tel: 86-771-323-2114 E-mail: hongjungx@163.com

Bing Jia

Guangxi Medical University, Guangxi 530021, China

E-mail: jiabingx@163.com

## Abstract

In the era of knowledge economy, patents which were a legal protection means of technology have been transformed into main resource for enterprises to make profits. Based on patent documents analysis and cases analysis, this paper introduced some concepts of enterprises patent strategies and then, combining with development situation of Guangxi sugar industry, explored how to promote improvement of Guangxi sugar industry with patent strategies.

**Keywords:** Patent strategy, Guangxi sugar industry, Development model

## 1. Introduction

On June 5, 2008, the State Council issued <national intellectual property strategy outline> (short for the Outline). And the Outline pointed out: China is standing at a new historical turning point. Developing and using knowledge resources is of great strategic significance because they change economic development approach, mitigate environmental constraints, and enhance core competitiveness of a country (State Council, 2008). Due to the rapid development of science and technology, knowledge factor has become into dominant resources of economic development and economical development modes are changing from traditional modes which relied on capital, nature resources and labor into new mode which relies on knowledge, talent and information (LI Chen, 2007). And competition among enterprises is becoming more intense in knowledge and technology.

Sugar industry, called “sweet industries of workers and peasants” in Guangxi, is Guangxi traditional and pole industry. Since 1993, Guangxi has been the largest sugar producing province (autonomous region) in China and the main sugar producing area in the world and its sugar production has accounted for about 60% of total sugar production in China. Therefore, Guangxi sugar industry, to a certain extent, can represent sugar production scale, sugar-making technology and development model of Chinese sugar industry. So, it is of great significance for us to explore how to transform production mode and to upgrade technology of Guangxi sugar industry with knowledge resources and patent strategies. Based on patent documents analysis and cases analysis, this paper introduced patent strategies in enterprises and then, combining with the situation of Guangxi sugar industry, explored how to promote development of Guangxi sugar industry with patent strategies.

## 2. Enterprise patent strategy

### 2.1 Definition of enterprise patent strategy

Patent strategy is a system planning of using patents which are associated with patented technology, law and economic principles (Wei Zhenni, 2008). It is used to guide competition in science, technology and economic field for enterprises to seek best interests.

Enterprise patent strategy is an overall plan for enterprises to use patents. In this plan, enterprises make some rules or policies to make fully use of patent intelligence information. Many enterprises in the world have thought patent strategy as main part of enterprises development strategies. Patents has been transformed from a pure legal defensive means of technology into a powerful resource used to obtain benefits and monopoly market (Li Lijing, 2000).

### 2.2 Classification of enterprise patent strategy

Enterprise patent strategies include patent creation, patent applications, patent implement, patent litigation, patent documents collection, processing and utilization etc. Enterprise patent strategy can be divided into two categories (Wei

Zhenni, 2008). First is offensive strategy which mainly refers to active and timely patent application and obtaining franchise. Through predicting future technology development, the offensive strategies pay more attention to the core technology or basic research. Second is defense strategy, also called patent network strategy, which mainly refers to prevent others from obtaining correlative patent through various means to protect their own patents. For example, enterprises develop external technology around their owned basic patent technology and weave patent network for protecting their core technology. There are still other derivative patent strategies, such as follow-up patent strategy. It means that enterprises purchase patents from owners, or exchange patented technologies with owners when these patented technology performed market value but they don't do original technology research and development. And there exists mixed patent strategy which integrates with various patent strategies.

### *2.3 Cases of using enterprise patent strategy*

Case 1: Japan's Canon Inc. is one of the world's best camera manufactures. In the late 1960s, it got into the photocopiers manufacture area, which was at that time dominated by U.S.A. copier giant - Xerox Corporation. Canon Inc collected and analyzed all the authorized patents of Xerox Corporation, and then invented a new generation of copier technology, thereby replaced Xerox Corporation as the world-renowned copier and printer manufacturers. Canon Inc successfully developed and extended its market share with patent strategy, and widened product scope from copiers to digital printers and semiconductor manufacturing equipment (Tong Wei & Tong Shuxing, 2002). What's more, Canon and other Japan's successful enterprises, especially in high-tech industries, have established patent information platform to enable them easily and timely to grasp the latest technology trends for them to make rapid development.

Case 2: Motorola failed in color TV field because of its ignoring on Japanese competitors' technology development, and had to exit from color TV industry. Since then, the company learned a lesson and paid more attention to the collection of patented technology intelligence and other important technical information of Japanese rivals. From this collection, the company comprehensively analyzed and assessed its competitors in technical strength, technological developments and technology strategy. Based on these, Motorola established their own strategic objectives, made adjustment of technology research and development direction, developed new products and then achieved tremendous success in the field of mobile communication (Yang Ruiguang & Feng Xiaoqing, 2007). This case showed that it is of great significance for enterprise development if patent resources are effectively used.

Case 3: Qingdao Haier Group can be thought as a leader and success enterprise of using patent strategy in China (Kong Lingbing, 2005). With the patent strategy of "using open and known technology" and "effective patent technological transformation", Haier Group developed into a current world-known enterprise from a small workshop. As early as 1987, Haier Group issued a patent briefing and took it as an important internal publication, and meanwhile updated monthly to ensure its technical staffs keep the latest patented technologies. With more and more new technology included in patent information, the Group has bought Chinese patent CD-ROMs since 1997 and updated every quarter so that patent information could fully meet the need of technological innovation and of new patent application. Then Haier Group's technical staffs assorted and summarized patented technologies so as to facilitate them to achieve technological breakthroughs with maximum efficiency. For the purpose of entering overseas market and of avoiding to infringe on foreign enterprises' patent right, Haier Group established special CD-ROM databases in 1999 which included many relevant patent literatures of U.S.A., Europe, Japan and South Korea. As globalization strategy proposed, Haier Group also cooperated with the Literature Department of the State Patent Office to establish database which included many existed patents of U.S.A., Japan and other developed countries. Now, Haier Group staffs can search any patent needed in product development stages in themselves patent database.

From development road of the above successful enterprises, we can learn that these enterprises all paid much attention to collecting patent information and building patent information system, and all effectively used patent strategies to develop themselves.

## **3. Patent status of Guangxi sugar industry**

With the coming of knowledge-based economy, more and more enterprises take patent as a kind of economic resource, even as a new economic growth point. And some enterprises make systemic patent strategy net or build "patent barrier" to prevent rivals in market. In such an environment, Guangxi sugar industry should effectively use patent strategy to develop itself, and upgrade quality of industrial development.

### *3.1 patent status in Guangxi sugar industry*

Since the reform and opening, China's sugar industry transferred in large-scale from Guangdong to Guangxi. Through 20 years development, Guangxi sugar industry has grown to 94 sugar enterprises in total number, and had daily production capacity to extract sugar from sugarcane over 0.3 million tons. The annual output of Guangxi sugar industry accounted for almost 60% of national total production (Huang Han, 2007). Through improving sugarcane variety, innovating technology and reformatting enterprise system, Guangxi sugar industry has accumulated certain innovation ability, technology in sugar-making has gone ahead in China sugar industry and the annual output of sugar has greatly

increased. Through searching and analyzing patent information from the "Experimental platform of Patent information services" and "China patent Digest" CD-ROM database data, we can clearly learn the ability of innovation and the status of development of Guangxi sugar industry (see table 1).

Table 1. the yearly patents applied and authorized in Guangxi sugar industry

year	1985-1990	1991-1995	1996-2000	2001-2005	2006	2007
Number of patents applied	4	15	15	31	11	2
Number of patents authorized	0	1	1	12	3	2

The table 1 showed that Guangxi sugar industry had 78 patents applied and 19 patents authorized from 1985 to 2007. The total patents applied and authorized have been less, but increased year by year, especially after getting into the 21<sup>st</sup> century.

In the data, the number of invention patent accounted for 42.3% of total patents, and the others were utility model patents. This meant Guangxi sugar industry had certain creative abilities. The technology fields of applied patents were mainly in C13D1 (sucrose juice production, account for 25% of all the patents applied) and C13D3 (sucrose juice purification, nearly 16% of all the patents applied), followed by C13C1 (extract sugar from sugarcane broken), C13F1 (sugar juice enrichment, evaporation and boiling), B01D33 (filter used in filtration operation), around 5% in all the patents applied.

However, comparing with foreign sugar industry, Guangxi sugar industry still had a wide gap in main production technology, production equipment, sugar products and comprehensive capacity of sugarcane utilization. Table 2 showed patents distribution of Guangxi sugar industry and of foreign sugar industry in IPC Classification.

Table 2. Patent distribution in IPC Classification between Guangxi and foreign sugar industry

Class No.	A23L	B01D	B30B	C12N	C13C	C13D	C13F	C13G	C13K
Guangxi sugar industry	1	5	8	0	7	40	9	4	0
Foreign sugar industry	5	1	0	5	7	18	14	0	20

Table 2 showed that foreign sugar patents applied in China mainly concentrate in processing technique of sucrose and its derivatives, such as C13K (deep-processing products and preparation of glucose and fructose), C13F (preparation or processing of raw sugar and syrup), C12N (microorganisms or enzymes, and their combinations), B04B (centrifuge). And foreign sugar industries had obvious advantage in the field of refined sugar and processing techniques of sucrose. While Guangxi sugar industry had a comparative advantage in C13D (sucrose juice purification), B01D (clarify devices), B30B (mechanical press), but most of these patents applied belong to utility model.

### 3.2 Problem in innovation of Guangxi sugar industry

According to contrastive analysis in patented technology, Guangxi has accumulated certain innovation abilities and technical advantages in the field of sucrose and its derivatives. And these could be showed from the facts that Guangxi sugar patent application was in the first place and that treatment technology of alcohol wastewater was in comparatively advanced stage in China sugar industry. However, the abilities of innovating technology, creating and using patents of Guangxi sugar industry still need to be improved for sugar industry sustainable development. And main problems in Guangxi sugar industry were as following.

(1) More investment were put in projects of increasing sugar-producing scale, but less in technology innovation of sugar equipment and processing techniques of sucrose, and there were less invention patent technology. During the "tenth Five-Years" and "eleventh Five-Years", Guangxi introduced and invested many large-scale sugar-making projects. However, those projects mainly concentrated in part-improvement of production line but not in development of core technology of equipment so that main equipment of sugar-making, such as centrifuges, has still depended on import equipment. The major products in Guangxi sugar industry were still white sugar and brown granulated sugar, but some products with high additional value, such as refined sugar, were less. Moreover, the preparation technologies of sucrose derivatives, such as lactic acid and citric acid, were also rare and new technologies were not created by the improving and innovating of production line.

(2) There were many sugar manufactured enterprises, but a little of them was able to create patent technology. Guangxi has 94 sugar enterprises, but less than 10 percent of them have already applied patent for their invention or innovation. Guangxi Guitang Sugar Co. Ltd., one of the largest sugar enterprises and a leader enterprise in Guangxi sugar industry,

applied only 26 patents from 1991 to 2006. And many other patents authorized were not working because of ignoring or bad management. What's more, some other large-scale sugar enterprises in Guangxi, such as South China Sugar Industry Group, East Asia Sugar Group, Fung Group of Sugar, Farm Sugar Group etc, had obviously advantage in sugar production and in comprehensive utilization of sugarcane, but had no any patent applied

(3) Guangxi Sugar enterprises had no new knowledge about resources factors and did not realize that the patent is becoming a new important resource of production. Now, some leading enterprises have built systemic patent strategy for enterprise development and taken patents as resources of production or a new economic growth factor. For example, some foreign enterprises of sugar-making, such as enterprises in Australia, India and Brazil, applied for patent protecting for their innovation and technological achievements through Sugar PCT (Patent Cooperation Treaty) and have already increased protection power of their intellectual property in China. But three sugar enterprises in our country were facing "337 investigations" from U.S.A. when they exported and sold their sugar products and sweeteners in USA. "337 investigations" alleges that our sugar enterprises infringed the five patents in production methods of sugar-contained sweeteners. In addition to the "337 investigation", the United States sued for a general exclusion order and prohibition order to our sugar enterprise. If adopted, all China's sugar enterprises will be unable to export their sugar products to the U.S.

#### **4. Development of Guangxi sugar industry**

Now, patents have become into important resources for some leading enterprises to develop and compete. Guangxi sugar industry should pay more attention on patent strategy so as to achieve industrial upgrading and sustainable development.

##### *4.1 Training ideas of patent strategy.*

Ideas are knowledge or awareness implied in personal brain and grown gradually up by learning, educating and practicing. Training ideas of patent strategy means that various measures will be taken for improving patent strategy consciousness of employees, technician and managers in sugar enterprises. According to the spirit of "national intellectual property strategy outline", sugar enterprises should take various ways, such as professional training, universal educating, special promotion, implementing etc, to make their staffs learn the importance and urgency of applying patent strategy to develop sugar industry. In implementing patent strategy, sugar enterprises should do best to stimulate their staffs to create and use patent strategy as much as possible.

##### *4.2 Building patent information platform of sugar industry.*

Patent information platform is the best information service center that can provide technical information and technology trend of sugar industry development. Each patent specification has word descriptions and graphs in detail. These patents give the latest technology as well as technical principle. Reading information from patent platform, staffs in sugar industry can directly learn technology trends in sugar industry development; obtain inspiration of solving problem in technology and also avoid wasting research time and fund because about 70-90% of all invention and creation recorded in patents have never been published in publications before. According to statistics from The World Intellectual Property Organization (WIPO), 35 billion Marks (about ¥180 billion) would be saved every year in scientific research and development if patent information and documents were made good use. Haier Group in China household electrical appliance industry is a successful enterprise using patent strategy. Haier Group implemented the patent strategy of "using open and known technology" and "improving effective patent technology", and then creating a new breakthrough in used technology. By doing so, Haier Group became a leading enterprise in household electrical appliance industry from a small workshop in 1978.

##### *4.3 Making appropriate patent strategies.*

Patent strategy in Guangxi sugar industry should be a system strategy which includes encouraging patents creation, strengthening patents management, promoting patents use and protecting valuable patent. In them, creating patents and using patents are more important. First, creating patents is the basic of patent strategy. So appropriate policies and incentive mechanism should be made to stimulate employees' patent creation and to motivate staffs innovation and invention. It is also a better way to encourage cooperation between sugar enterprises for capturing and researching core technology and then for using them together so as to make these core technology into general technology and standard in sugar industry. Second, using patents is the goal of patent strategy. Therefore, sugar enterprises should train employees to improve their abilities and skills of using various patents, such as patented invention, patent Union, patent cross-licensing and patent purchasing etc. When patented technologies are used in production or become into new goods in market, economic value of patents can be reflect. So upgrading of Guangxi sugar industry and improving of economic growth modes should use patent strategies and transform patented technologies into real productivity.

#### **5. Conclusion**

In the era of knowledge economy, competition among enterprises has been transformed from products and technologies

competition to patent competition. Many leading enterprises have changed their competitive strategy from capital and products export in the past to present “patents first, and then capital and products”. They made profit by exporting technology and selling patents. Sugar industry, as Guangxi pole industry, needs to learn using patent strategies so that development modes of Guangxi sugar industry change step by step from traditional mode of relying on capital, resources, labor to new mode based on knowledge, talent and information.

### References

- Huang, Han. (2007). Reviewing and thinking on Guangxi sugar industry. *Guangxi Economy*. 2007(5)
- Kong, Lingbing. (2005). The case analysis of the application of enterprise patented strategy. *Science and Technology Information Development & Economy*. 2005 (13).
- Li, Chen. (2007). Building an innovation-oriented country, intellectual property strategy is an important part. *Science Times*. 2007(10).
- Li, Lijing. (2000). New ideas on enterprise patent strategy implement. *Therio Overview*, 2000(6), 48-49.
- State Council, People's Republic of China (2008). National Intellectual Property Strategy Outline. *China Intellectual Property News*. 11 June 2008.
- Tong Wei & Tong Shuxing. (2002). Japanese successful companies how to implement patent strategy. *Overseas markets*. 2002(12), 30-31.
- Wei, Zhenni. (2008). Enterprises competition & patent strategy implement. In Feng Xiaoqing, *Globalization and the protection of intellectual property rights*. Beijing: China University of political science and law Press.
- Yang, Ruiguang & Feng, Xiaoqing. (2007). Discussion on the issue of enterprises patented strategy formulation. *Science & Technology Progress and Policy*. 2007 (11).
- Experimental platform of Patent information services. [Online] Available: [http://pub.cnipr.com/pubpifs/index.do\(2008\)](http://pub.cnipr.com/pubpifs/index.do(2008))



## A Review on Chinese Management Pattern Innovation

Chongjun Fan (Corresponding author)

Business School, University of Shanghai for Science and Technology

Shanghai 200093, China

E-mail: cjfan@sh163.net

Fenglan Huang

Business School, University of Shanghai for Science and Technology

Shanghai 200093, China

E-mail: lanfeng\_1999@163.com

Xiaoshuang Guo

Sino British College, University of Shanghai for Science and Technology

Shanghai 200093, China

E-mail: girl-g1@163.com

*The research is financed by the key research project of Shanghai Municipal Education Commission of China. No. 06ZZ34 (Sponsoring information)*

### Abstract

With the rising of Chinese economy, the Chinese management pattern becomes the focus which takes scholars and managers' attention to warmly discuss. In this paper, we analyze and summarize Chinese experts and the enterprise' research on the Chinese management pattern's innovation. So we hope it can lead more people to make deeper research in this area and promote this academic theory.

**Keywords:** Management pattern, Enterprise culture, Management innovation

### 1. Introduction

The Chinese style management is the management pattern that conforms to the Chinese Enterprise actual need and comes from the Chinese management practice. Since the reform and open policy, combining the Chinese own management practice and the outstanding traditional culture with western management theory, Chinese enterprises have carried on the management pattern innovation unceasingly and formed some management patterns with the Chinese characteristics. In recent years, some classical management and operation books with the Chinese elements, have enlightened our country enterprises such as "Tai Ji Management", "Chow Yi Management", "Water Boils the Three countries", "Chinese style Management", "Chinese style Leader", "Middle course Management", "Learn from the People's Liberation Army", "Learn from Army Management", "From Victory to Victory". But we have to say the Chinese management pattern is still in the initial development stage with thick commercial taste. Compared with American management pattern, Japanese management pattern and German management pattern, the Chinese management pattern theory and practice hasn't been formed in system. I hope that the academic circle and business community can pay more attention to "the Chinese management pattern".

### 2. Double Eagle Management Pattern

What is called double eagle management pattern is that: on one hand looks at the government, on the other hand looks at the market; on one hand looks at the Chinese management culture, on the other hand looks at the overseas advanced management mode. This viewpoint stresses that enterprises should consider in a overall view and the "Golden Mean" has manifested itself in the double eagle management pattern.

On one hand looks at the government, on the other hand looks at the market. As surviving and developing in market environment, all enterprises must adapt themselves to the market tendency so that they can obtain the success. At the same time, under government's supervision and regulation, they must conform to government's policy.

On one hand looks at the Chinese management culture, on the other hand looks at the overseas advanced management mode. There are many quite essence which is worth for us to learn in Western management theory. Simultaneously, it should notice that China is one of four world big ancient nations and its management culture is of long standing for five thousand years,. so there are many things which can be used for reference in the chinese managemnet thoughts. Therefore, on one hand we should look at the Chinese management culture, on the other hand look at the overseas advanced management mode in order to make up for our deficiency by learning from others' strong points and combine Chinese management “thought” with western management “technique” harmoniously.

Rational management involves sciential management tool, method and system and instinct management includes the application of western democracy, freedom thought and Chinese Confucianism’s tradition ideological thought. The double eagle management pattern emphasizes the rational management and instinct management equally.

Enterprise management should be carried out closely combined with traditional culture. The Japanese once proudly said that “our management was combining American management science with eastern Confucian thoughts”. Contemporary Japanese management thought is mainly from western countries combined with Japanese national history and traditional culture, which has formed the unique Japanese modern management pattern and has achieved great success. The Japanese management pattern is typical “the instinct + the rationality” management with high effective. Japanese experience indicated that national management culture has vital influence on modern management.

Simultaneously, it also shows that enterprise management cannot only depends upon the introduction of external experience, but also inherit our country’s cultural heritage and take the path which combines with national history and traditional culture.

The double eagle management carrying out management philosophy which conforms to the Chinese culture. It is a management pattern of elasticity, the personification, the tamper force with mercy, many sides’ balance, play to the score. It leads with the brain and the heart, manages with the keen judgment, and operates by self-confidence, flexibility. Its core characteristic concentrates on “two points”: “flexibility” and “balance”.

### **3. General Management System (GMS)**

General Management System (GMS) is a set of management actual operating system developed in the management process coming from the specific management idea, is “the human, the system, the innovation” pattern, and is also a kind of innovation on Chinese management pattern from the enterprises’ view. General management system considered that the human is the most important resources in the enterprise, is the foundation of enterprise management; the system is the law of enterprise management and the innovation is source of enterprise management. The human management enables the enterprise to exist, the system management enables the enterprise to grow strong and the innovation management enables the enterprise to be unfailling. At the same time, after thinking of the management theory and the management practice, General management system raises a set of management patterns based on the multi-dimensional gambling human nature hypothesis. The multi-dimensional gambling human nature hypothesis believes: Manager’s (is possible supervisor also supervisee) human nature has multi-dimensional. In the specific management environment, manager acts according to others’ human nature performance to adjust own behavior, thus forms the management interaction. Here “Dimension” refers to work, life, public relations, love, family, enterprise and so on, but everyone will have different behavior in these aspect. In the specific management environment, there will be a final balance after several times adjustment namely “gambling”. After achieving balance, the management system in fact enters the steady state. In this state the management is extremely easy to have the inertia, if want to change this condition, General management system proposes the “person + system + innovation” management method which remolds the multi-dimensional person in management system, transforms the system and carries on comprehensive innovation to make the management system operate in a higher level. Therefore, General management system is also a dynamic adjust process.

General management system consists of 12 sub-patterns namely: Enterprise innovation droved pattern; Shareholder resources optimization pattern; Enterprise benefit share pattern; Network organizational structure pattern; Enterprise flexible strategic pattern; Rational decision-making cross space and time conformity pattern; Information system forming pattern; Exceeding routine work pattern; Marketing system impetus pattern; Multi-dimensional person remolded pattern; Enterprise transplantable culture pattern; Enterprise comprehensive reengineering pattern. These 12 sub-patterns have comprehensive guidance to the enterprise. It standing in the business management commanding height with reflection on current management theory and summary to existing management practice, expresses abstract management thought vividly with the structural language. At the same time, General management system claim that the enterprise should develop by innovation and expand steadily.

General management system is a management pattern which take setting up world remarkable enterprise as own duty through total research on West and Chinese management thought and successful and failing experiences and lessons of Chinese and foreign famous enterprises. General management system is a set of quite complete theory system, because

there is not only the theory premise which the management pattern is based on, but also the unique core thought and the theory system of management pattern and the operating means and tools of management pattern. In enterprise's practice, General management system is a set of operating system combining with enterprises' actual situation which designs to take different improving measures towards enterprise's different development phases and different management patterns, and finally forms the management pattern conforming to enterprise own actual situation.

#### **4. Philosophy Thinking of Management Pattern**

Through analysis Chinese ancient traditional management thoughts, Liu Tangyu and Tang Kunsong (2003) have constructed a set of new contemporary Chinese management pattern-the management is a process of "self-cultivation and influence on others".

"Self-cultivation" is management premise and starting point. Confucians believed that a good superintendent must raise himself and own good individual quality, because superintendent's perspective decides enterprise's future. Self-cultivation can be believed very important.

Management's goal and foothold lie in "influence on others", and it mainly aims at the supervisee. The superintendent through the benevolent, righteousness, the principle, the wisdom, the credit, improve himself unceasingly, then through management's activities, affect and lead others to achieve "influence on others" goal.

Best management principle is integration of the emotion, the advantage, the law and the principle, and requires moving people by the emotion, driving people by the advantage, equal by law, convincing people by principle. Moving people by the emotion is based on Confucianism of "human original nature is friendly", and it is that requests the superintendent influence the supervisee on positive side. It is quite equal to current "Humanist". Driving people by the advantage is in accordance with "the advantage" of the Mohist pursuing consistently, driving the supervisee through the material interest. Equal by law, namely "Nothing can be accomplished without norms or standards", requests the superintendent to formulate the rules and regulations which all staffs (including the superintendent) should comply with reflecting fair management. Convincing people by principle is "the virtuous rule", referring that the management should be established on the moral rule premise and observes the commercial ethics. Simultaneously, management must "play to the score" and it is composed of management strategy and management tactics. The former is represented by "soldiers are in changeable circumstances but water is variable shape" in *The Art of War*, but the latter is the famous saying of "opponent, fight". "Hands-off" in thoughts of Lao zi and Zhuang zi, this is the supreme state of management. It requires superintendent not to do nothing but comply with the nature without action recklessly. So-called "ruling a great nation just like cooking a small delicacy" is the soul of Taoism management, which had ever formed "Wen Jing Zhi Zhi" in Western Han Dynasty. Until now, this still should become the supreme state of modern superintendents' pursuing.

The above management philosophic thinking is the essence of traditional thought which implicated in five theories of Confucianism, Mohism, Cabalism, Taoism, and Bingism. Management pattern based on this is Management pattern with Chinese characteristics.

Although someone have already analyzed Chinese management pattern in a philosophical point of view, these view hasn't been formed into scientific system, especially in practice.

#### **5. Enterprises Thinking of Management Pattern**

Enterprise management pattern serves enterprises, thus, any enterprise management pattern must come from it and give back to it. It is more significant that some scholars analyze Chinese management pattern from the aspect of the enterprise.

Zheng Heping (2003) considers that management pattern contains structure factors and support factors. Structural model is made up of four essential factors: enterprise culture and management idea, managerial technique, management system and rules and regulations, decision-making and leader system. These four essential factors are indispensable, because lacking of anyone can cause the structural model invalid. We agree with his thought that the enterprise culture and management idea is the core component of structural model, because they will affect enterprise's strategic planning and orientation, and what kind of enterprise depends on the what kind of culture. The managerial technique includes management method and management regulation, and the former is relatively independent but the latter influenced by other factors have to interact with them. Management method is the tool of the enterprise used in resources concentration process, involving in the allocation of resources in an effective way. Management regulations decide the flow, direction, way and form of enterprise's three-flows (cash flow, goods flow, information flow). Management system contains segregation of duties, information and instruction transmission system. Rules and regulations including every part from property rights system to enterprise's all interior system which are the criterion and standard of the enterprise and workers' behavior in enterprise. The decision-making and leader system is the organizational structure and organizational connection of the enterprise making effective decisions. Managerial technique, management system and rules and regulations and decision-making and the leader system all may duplicate and use for reference, but

enterprise culture and management idea are core competitiveness in enterprise which are raised and formed in enterprise would rather draw from the outside directly. Support model includes person's quality, product technology and business goal and target market that support enterprise develop together. Emphasizing the important role of talented person and technology meets the actual need of our country development now.

Based on the above, Qicheng Lu(2006) proposes that structure factor contains five aspects: property rights system, enterprise culture and management theory, decision-making and leader pattern, managerial technique and management system and organization pattern. And property rights system is the core factor of them, because it is a decisive factor in enterprise and is also the foundation of other four essential factors playing the role. This thought has certain truth. So long as the property right is clear in enterprise, the responsibility will be distinct and the enterprise can operate orderly, so the above view is rational. Support factor is made up with staff, product and service, enterprise strategy goal and customer. The above factors can't play its all role until they interact with each other in management according to certain rule.

## **6. Other Thoughts**

### *6.1 Rational Management and Irrational Management*

The rational management pattern's hypothesis is that the human is considered as "the economic man" pursuing the benefit maximization and their actions are outcome of thinking and behavior to realize oneself maximum benefit according to logical principle and experience. Therefore, the human may be induced and controlled through the system and the benefit mechanism. In the management means and method, the rational management pattern stresses "the digital management", places great emphasis on the quantitative model and logical program of the decision scheme and highly praises using the production technology, the management structure and the management flow formulation to achieve the efficiency goal. But the irrational management pattern's hypothesis is that the human act according to the desire, the fervor and the will.

Nie Zhengan (2000) thinks that there is a deviation all time in Chinese management pattern by analyzing whole orientation of recent two decades' Chinese management pattern; therefore he proposes that the rational management should be in the dominant position in the Chinese management pattern of the rational management combined with the irrational management. He firmly opposes "carry out the scientific management firstly, and then implements humanism". He also opposes putting the emotion management into practice in stages and advocates parallel theory. Simultaneously he also considers the rational management as the primarily battlefield. If want to own "the digital survival way", we have to establish the perfect digital administration mode. He proposes scientific organization structure, operating decisions and production management should be established and scientific information management should be implemented. Although he has realized the irrational management's importance with time modernity, he hasn't placed the irrational management at the same important position of the rational management and still thinks the rational management is leading role. His idea is greatly different from the present thinking: the rational management combining with the human resources management is the theme of Chinese management development in the 21st century.

### *6.2 Dapeng Pattern*

Under the internationalization background, the trans-culture confliction in Multinational Corporation and Co-partnership Company indicates that management science principle must be integrated with specific traditional culture of various nations. Pan Chenglie has proposed the Chinese characteristic management pattern –Dapeng pattern: Some basic or guiding principles of Chinese characteristic management are in the head of the bird which play the role of guide; The bird body is the successful experience which is summarized and refined in the long-term management practice in enterprise, and has certain universal significance; The bird has two wings: one is making foreign things serve China, and the other is making the past serve the present. He also thinks that it's time to form the Chinese characteristic management pattern when these four parts are gradually mature and assembled a bird. But he hasn't given an account of how to "assemble". Do simply put pieces together or compose an organic whole? He only proposes a simple outline rather than discusses deeply.

The author believes that Dapeng pattern has given one kind of the thinking frame of Chinese management pattern theory innovation and experts can "fill in" the concrete content according to own research and summary.

### *6.3 Chinese enterprise "Community Individuality"*

In these years, Chinese Enterprises have industriously learned from the European and American Enterprise, simultaneously, realized that Chinese Enterprises should keep their own "individuality" which different from European Enterprise's steady management and northern America Enterprise's opening management. At the Chinese enterprise high-level forum and exhibition on the personalized ERP application achievement, Xu Shaochun the president of Golden Butterfly group stated: "the community individuality showing in the Chinese Enterprise is one kind of Chinese management pattern." There are many enterprises with their own individuality in china, and this unique individuality

has already become their core competitiveness.

The causing of Chinese enterprise's "community individuality" is based on the following three market characteristics: The market changes and develops with high speed in China; China is switching from a big manufacturing nation to a big independent innovation nation; Chinese leads Chinese enterprises, whose management style are influenced by Chinese culture of 5000 years.

In theory circle, there is a point of view that putting common character of the successful Chinese enterprise management idea and method in practice together is Chinese management pattern. But there are still many difficulties on how to concentrate the outstanding common character.

### **7. Enterprise Practice of Chinese Management Pattern**

Huawei's success is a very good case of Chinese management pattern. The reason why Huawei is researched by people crown by "the phenomenon" is that its assets has been expanded more than 1000 times for 10 years and it possesses unique enterprise culture and management mode, such as, the militarized management, more or less some closed and paternalism ironhanded enterprise culture, market route of "the rural areas encircling the cities" and so on. This kind "the localized wolf" color seems out of harmony with developing the international market significantly and spending more than ten million dollars on inviting the international consultant firm to adjust management flow, but "localized as well as foreign" Huawei succeeded.

Haier pattern is another good example of Chinese management pattern. Haier management system and pattern gradually mature with Haier's development, which switch from a refrigerator factory on the wedge of bankrupt to a current internationalization company. Haier's development has also reflected enterprise management pattern transformation in the process of changing planned economy to market economy in our country and the process of management innovation after learning from the west. It roughly covers four stages:

The first stage is from the disorder to the order. In Haier's early stage, Zhang Ruimin had stipulated 13 rules, so the chaos gradually changed better. And he set up the quality sense and brand awareness through smashing the refrigerator and a series of action.

The second stage is from the order to the system. The introduction of quality certification system, especially American UL quality certificate, had laid a good foundation for the establishment of Haier's management system.

The third stage is from the system to the promotion. It mainly revealed the management concept transformation from product to talents. Haier established the OEC rule, one of which is "never put off today's matter to tomorrow, improve every day" effectively enhanced staff's quality.

The fourth stage is from the height to the extension. Haier's management were enhanced from all parts and multi-dimensional management philosophy were systematically completed, including survival philosophy, staffing philosophy, operation philosophy, service philosophy and so on.. Hence, the Haier management pattern of Chinese characteristic has formed, leading many enterprises to study competitively.

### **Conclusions**

Chinese management pattern is also in the process of developing and innovation unceasingly, not just because the management itself is the process of solving the contradictory gradually, but also because there is unique circumstance in China. Because China is a developing country, compared with developed countries with over a hundred years history of enterprise management, especially in small and medium enterprises, Chinese enterprise management is quite still immature, and operation flows are changed and adjusted frequently. In addition, socialist market mechanism has experienced the reform process from the establishment to the improvement in these years. The frequent organizational reform has brought many more new tasks to enterprise management, and prompts Chinese enterprise to adjust and improve management pattern unceasingly. With Chinese management steady mature by study and innovation, Chinese management pattern will be enhanced to the theoretical level, and will produce profound and widespread effect.

### **Acknowledgements**

This research was supported by the key research project of Shanghai Municipal Education Commission of China (No. 06ZZ34). Expresses the thanks.

### **References**

- Guo Jian and Cao Ping. (2003). The 21st Century Chinese Management Pattern Philosophy Analysis. *Economic Working Guide Periodical*, 1: 14-15.
- Liu Tangyu and Tang Kun Song. (2003). Comprehensive Analysis and Application on Chinese Traditional Management Thoughts. *Journal of Fujian Agriculture and Forestry University*, 2: 55-58.
- Li Wei. (2007). Pushing Chinese Management Pattern to Success. *Microcomputer & Its Applications*, 1: 53.

Lu Qicheng. (2006). Research on Enterprise Management Pattern Theory and Development. *Times of Economics and Trade*, 10: 71-74.

Nie Zhengan. (2000). Chinese Enterprise Management Pattern Orientation Deviation and Adjustment in Recent 2 Decades. *Economic Review*, 2: 119-122.

Xu Kang and Lao Hansheng. (2001). *The Scientific Course of Chinese Management*. Hunan: Hunan Science and Technology Press.

Zheng Heping. (2003). Enterprise Management Pattern Theory and Chinese Enterprise Management Pattern Direction Analysis. *Enterprise Vitality*, 1: 60-64.

Zhu Xiaodong and Wang Fengzhi. (2006). *Ten Management Patterns Effecting on Chinese Enterprises*. Beijing: Economic Management Press.



## Mutual Fund vs. Life Insurance: Behavioral Analysis of Retail Investors

Dr. Bhagaban Das

Senior Reader, P.G. Department of Business Management  
Fakir Mohan University, Vyasa Vihar-756019, Balasore, Orissa, India  
Tel: 91-94371-31429 E-mail: bhagaban\_fm@yahoo.co.in

Ms. Sangeeta Mohanty

Associate Professor, Academy of Business Administration  
Industrial Estate (S1/25), Angaragadia, Balasore – 756001, Orissa, India  
E-mail: sangeeta\_mohanty@rediffmail.com

Nikhil Chandra Shil (Corresponding Author)

Senior Lecturer & Assistant Proctor, Department of Business Administration  
East West University, 43, Mohakhali Commercial Area, Dhaka – 1212, Bangladesh  
Tel: 88 02 9882308 E-mail: nikhilacc@yahoo.com

### Abstract

During the post 1990 period, service sector in most of the Asian economies witnessed growth fueled by significant changes in their financial sector. India is now being ranked as one of the fastest growing economy of the world. During last one decade or so, role of Indian insurance and mutual fund industry as a significant financial service in financial market has really been noteworthy. In fact since 1992, a number of research studies have underlined the importance of these two in the Indian capital market environment as important investment vehicles. But the existing 'Behavioral Finance' studies on factors influencing selection of mutual fund and life insurance schemes are very few and very little information is available about investor perceptions, preferences, attitudes and behavior. Yet again, perhaps no efforts are made to analyze and compare the selection behavior of Indian retail investors towards mutual funds and life insurances particularly in post-liberalization period. With this background this paper makes an earnest attempt to study the behavior of the investors in the selection of these two investment vehicles in an Indian perspective by making a comparative study.

**Keywords:** Investor's Behavior, Retail Investors, Mutual Fund, Life Insurance, India

### 1. Introduction

Economic success and sound financial system is intertwined in both literature and practice. Economic reform process of 1991 had a great impact on redefining the financial system of India leading to overall economic development of the country. Today, India's financial system is considered to be sound and stable as compared to many other Asian countries where the financial market is facing many crises. India is now being ranked as one of the fastest growing economy of the world. As the eleventh five-year plan has already in progress, India is targeting a GDP growth rate of around 9%. The savings of the country is now around 29%. Foreign investors are finding Indian market with high potential. India's forex reserve is around \$185 billion. Inflation is around 7% which is considered good for a developing economy. Sensex is more than 16 000 points in Bombay Stock Exchange. Some experts have opined that the share of the US in world GDP is expected to fall (from 21 per cent to 18 per cent) and that of India to rise (from 6 per cent to 11 per cent) by 2025, and India will emerge as the third pole in the global economy after the US and China. All these favorable things could have not been possible without the sound financial market. The role of Indian mutual fund and insurance industry as significant financial services in financial market has really been noteworthy during last one decade or so. In fact, both of these products have emerged as an important segment of financial market of India, especially in channelizing the savings of millions of individuals into the investment in equity and debt instruments. From retail investors' point of view, keeping large amount of money in bank is not wise as currently bank rate has fallen down below the inflation rate. As in real terms the value of money decreases over a period of time, the only

options available for them is to invest their money in stock market. However retail investors face a lot of problem in the stock market; viz. limited resources, lack of professional advice, lack of information and so on.

## **2. Background of the Study**

The pre-liberalized India had a very poor rate of savings and most of the money earned was spent on consumption rather than accumulation. But in the post-liberalization period, India saw an upsurge in volume of savings as depicted in Table-1.

Insert Table 1 Here

So, investment companies should continually introduce new types of funds in an effort to attract investor's capital and maximize assets under management (Khorana and Servaes 1999). However investment is increasingly considered as a subject falling under behavioral science rather than finance or economics. It is governed more by trends and group behavior rather than rationality and cold calculations. Investors like consumers are also immensely influenced by fashions and what is "in-thing". Moreover, investors are unique and are a highly heterogeneous group at the retail level. Hence, designing a general product and expecting a good response will be futile (Odean 1999). It is widely believed that Mutual funds (MFs) and Life Insurances (LIs) are designed to target small investors, salaried people and others who are intimidated by the stock market; but on the other hand, like to reap the benefits of stock market investing. In spite of this, the future of mutual fund and life insurance industry in India will be undeniably competitive not only from within the industry but also from other financial products that may provide many of the same economic functions, which is now observed in USA. All this in aggregate, heightens the consumer's confusion in selection of the investment products. Unless the mutual fund and life insurance schemes are tailored to his changing needs, and unless investment companies understand the fund selection/switching behavior of the investors, survival of funds will be difficult in future. Tripathy (1996) in her study observed that with the structural liberalization policies no doubt Indian economy is likely to return to a high grow path in few years, at the same time mutual fund (and life insurance) organizations are needed to upgrade their skills and technology. With this background, a humble attempt is made in this paper to study the factors influencing the fund/scheme selection behavior of Indian retail investors with regards to mutual fund and life insurance products by making a comparative study between these two.

## **3. Utility of the Study**

The study will help the individuals to make a wise decision in investing their savings; such as: whom to buy from and where to buy. Further this study will help mutual fund and life insurance companies to understand the profile of Indian retail investors and their behavioral pattern. By knowing this, companies can improve their products and can adopt apposite strategy to tap unexplored market in a better way.

## **4. Objective of the study**

In order to examine the issues as raised above, this paper has the following objectives:

- a) To understand the retail investors' behavior towards different savings avenues on the basis of their age, gender, education and profession.
- b) To identify the features as the retail investors look for in investment products
- c) To identify the scheme preference of investors
- d) To identify the factors those influence the investor's fund/scheme selection
- e) To identify the source of information that influences the fund/scheme selection decision.

## **5. Limitations of the Study**

Like most of the other social researches, the study suffers from the following limitations that should be considered carefully at the time of generalizing the findings of the study:

- a) Sample size is limited to 100 educated investors in metro cities only. The sample size may not adequately represent the national market.
- b) This study has not been conducted over an extended period of time having both market ups and downs. The market state has a significant influence on the buying patterns and preferences of investors.

With these limitations, the next section briefly describes the conceptual framework of mutual funds and life insurance as well as gives an overview Indian mutual funds and life insurance industry. Then reviews from the available literature on the subject are presented followed by a discussion on the methodology adopted for the study. Later on, a detail analysis is presented on the selection behavior of retail investors towards mutual funds and life insurance products. Finally, the paper is ended with the findings of the study and some concluding remarks.

## **6. Conceptualization of Mutual Fund and Life Insurance**

A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal. The money thus collected is then invested in capital market instruments such as shares, debentures and other securities. The income earned through these investments and the capital appreciations realized are shared by its unit holders in

proportion to the number of units owned by them. Thus a Mutual Fund is the most suitable investment for the investment-illiterate people as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost. The flow chart below (Figure 1) describes broadly the working of a mutual fund:

Insert Figure 1 here

Life Insurance or Life Assurance, on the other hand, is a contract between the policy owner and the insurer where the insurer agrees to pay a sum of money upon the occurrence of the insured. Insurance should be considered a key component of economic development and the best mechanism to take care of multidimensional risks in modern economies (Lindley 2007).

### **7. Indian Mutual Funds and Insurance Industry - An Overview**

The origin of Mutual Fund Industry in India is with the introduction of the concept of mutual fund by Unit Trust of India (UTI) in the year 1963. Though the growth was slow initially, it has been accelerated from the year 1987 when non-UTI players entered the industry. With the boom of June 1990 and then again 1991 due to the implementation of new economic policies leading to structural change of securities pricing in stock market, the performance of the mutual fund industry is encouraging. Because, individual investors have been emphasized in India in contrast to advanced countries where mutual funds depend largely on institutional investors. In general, it appears that the mutual fund in India have given a good account of itself so far. With the entry of private sector funds in 1993, a new era started in the Indian mutual fund industry, giving the Indian investors a wider choice of fund families. The industry now functions under the SEBI (Mutual Fund) Regulations 1996. The number of mutual fund houses goes on increasing with many foreign mutual funds setting up funds in India and also the industry has witnessed several mergers and acquisitions. As at the end of January 2005, there were 33 mutual funds with total assets of Rs.121805 cores. The industry has grown in size and manages total assets of more than \$30351 million. Of the various sectors, the private sector accounts for nearly 91% of the resources mobilized showing their overwhelming dominance in the market. Individuals constitute 98.04% of the total number of investors and contribute US \$12062 million, which is 55.16% of the net assets under management.

The Indian Life Insurance Industry is driven by factors like incidences of natural calamities at regular intervals, shifting consumer behavior, rising insurance contribution to GDP and changing socio-economic demography. The growth of the life insurance products has been further boosted by the entry of private players following the deregulation of the industry in 2000. They have contributed a lot to the industry by introducing new distribution channels (such as banc assurance) and strategies to the industry. The rising demand for retirement provision in the ageing population along with efforts of governments to move from public to private pension schemes has also led to rapid growth. Filled by the above factors, it is reported that the life insurance market to swell at a CAGR of over 200% during 2006-2009. The dynamic growth of insurance buying is partly affected by the (changing) income elasticity of insurance demand. It has been shown that insurance penetration and per capita income have a strong non-linear relationship (Enz 2000). Based on this relation and other considerations, it can be postulated that by 2014 the penetration of life insurance in India will increase to 4.4% (Table 2).

Insert Table 2 Here

Yet, more than three-fourth of India's insurable population has no life insurance coverage. Considering that only about 65 million out of 250 million people are covered by life insurance, the potential is quite evident.

### **8. Review of Literature**

Since 1992, a number of articles and brief essays have been published in financial dailies, periodicals, professional and research journals, explaining the basic concept of Mutual Funds and life insurances and behavior of investors on them. They underline the importance of mutual funds and life insurances in the Indian capital market environment. They touch upon varied aspects like regulation of mutual funds and life insurances, investor expectations, investor safety, trend in growth and some other critical views on the performance and functioning of mutual funds/life insurance schemes. For cases in point, Ippolito (1992) says that fund/scheme selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds. Gupta (1994) made a household investor survey with the objective to provide data on the investor preferences on MFs and other financial assets. The findings of the study were more appropriate, at that time, to the policy makers of mutual funds to design the financial products for the future. Kulshreshta (1994) offers certain guidelines to the investors in selecting the mutual fund schemes. Shankar (1996) points out that the Indian investors do view Mutual Funds as commodity products and AMCs, to capture the market should follow the consumer product distribution model. Jambodekar (1996) conducted a study to assess the awareness of MFs among investors, to identify the information sources influencing the buying decision and the factors influencing the choice of a particular fund. The study reveals among other things that Income Schemes and Open Ended Schemes are more preferred than Growth Schemes and Close Ended Schemes during the then prevalent market conditions. Sikidar and Singh (1996) carried out a survey with an objective to understand the behavioral aspects of the investors of the North Eastern region towards mutual funds investment portfolio. The survey

revealed that the salaried and self-employed formed the major investors in mutual fund primarily due to tax concessions. Lynch and Musto (2003) were of opinion that this decade will belong to mutual funds because the ordinary investor does not have the time, experience and patience to take independent investment decisions on his own. Goetzman and Peles (1997) established that there is evidence of investor psychology affecting fund/scheme selection and switching. Sundar (1998) conducted a survey to get an insight into the mutual fund operations of private institutions with special reference to Kothari Pioneer. The survey revealed that agents play a vital role in spreading the Mutual Fund culture; open-end schemes were much preferred then age and income are the two important determinants in the selection of the fund/scheme; brand image and return are the prime considerations while investing in any Mutual Fund. Khorana and Servaes (1999) had experimented that the decision to introduce a new type of fund is affected by a number of variables, including investor demand for the fund's attributes. Chakarabarti and Rungta (2000) stressed the importance of brand effect in determining the competitive position of the AMCs. Their study reveals that brand image factor, though cannot be easily captured by computable performance measures, influences the investor's perception and hence his fund/scheme selection. Shanmugham (2000) conducted a survey of 201 individual investors to study the information sourcing by investors, their perceptions of various investment strategy dimensions and the factors motivating share investment decisions, and reports that among the various factors, psychological and sociological factors dominate the economic factors in investment decisions. In his study "*Are Retail Investors Better off Today?*" Black (2004) observed that in recent years, investors' attitudes towards the securities industry plummeted, in reaction to both the conflicted research and the mutual fund scandals. He concluded that the most optimistic assessment is that the SEC has plenty of unfinished business to attend to. Keli (2005) is of opinion that Past performance and Fund's Investment Strategy continued to be the top two drivers in the selection of a new fund manager. Rajeswari and Moorthy (2005) observed that investors demand inter-temporal wealth shifting as they progress through the life cycle. Omar and Frimpong (2006) stressed the importance of life insurance and regarded it as a saving medium, financial investment, or a way of dealing with risks. Alinvi & Babri (2007) are of view that customers' preferences change on a constant basis, and organizations adjust in order to meet these changes to remain competitive and profitable.

Studies on life insurance use dates back to Heubner (1942) who postulated that human life value has certain qualitative aspects that gives rise to its economic value. Hakansson's (1969) study indicates that demand for life insurance varies inversely with the wealth of the individuals. Lewis (1989) found out that the number of dependents has an influence on the demand for life insurance. Headen and Lee (1974) studied the effects of financial market behavior and consumer expectations on purchase of ordinary life insurance and concluded that life insurance demand is inelastic and positively affected by change in consumer sentiments; interest rates playing a role in the short run as well as in the long run. The study by Truett et al. (1990) discussed the growth pattern of life insurance consumption in Mexico and United States in a comparative framework, during the period 1964 to 1984. They concluded the existence of higher income inelasticity of demand for life insurance in Mexico with low income levels. Age, education and income were significant factors affecting demand for life insurance in both countries. The study by Browne et al. (1993) based on 45 countries for two separate time periods (1980 and 1987) concluded that income and social security expenditures are significant determinants of insurance demand, however, inflation has a negative correlation. Black and Skipper (2000), is of opinion that life insurance becomes the mechanism to ensure a continuous stream of income to the beneficiaries. The two main services provided by life insurance: income replacement for premature death and long-term savings instruments, are the starting point for Beck et al. (2003). The studies by Ward et al. (2003) and Beck et al. (2003) evolves around the issue of finding the cause behind variations in life insurance consumption across countries. After almost three decades of empirical work in this direction, they are of the opinion that "it is still hard to explain the anomalous behavior of Asian countries with higher savings rate, large and growing population, relatively low provision for pensions or other security and a sound capital market but comparatively low per-capita consumption of insurance. Except Japan, most of the Asian countries have low density and penetration figures". Raman and Gayatri (2004) have observed the customers' awareness towards insurance companies. They found that 53% of the respondents belong to the age group below 30, 24% to the age group 31-40, 2% belong to the age group of 41-50 and the rest to the age group of 'above 50'. Further they also observed that a large percentage of the insured respondents (32%) are professionals, and 56% of the respondents are married. They have also found that 52% of the respondents have taken a policy to cover life risk, 44% of them to get tax advantage and the remaining to invest for growth of capital. Zietz (2003) and Hussels et al. (2005) has reviewed the efforts of researchers to explain consumer behavior concerning the purchase of life insurance for almost 50 years. The review of earlier studies concludes that bulk of the empirical studies undertaken finds a positive association between increase in savings behavior, financial services industry and demand for life insurance. There are two detailed studies on the determinants of life insurance demand, one taking into consideration only the Asian countries and the other based on 68 economies. Chowdhury, Rahman and Afza (2007) have found in a survey that a good number of people are choosing insurance companies with a view to earn higher return on deposited money. Rajkumari (2007) in her study undertaken to identify the customers' attitude towards purchase of insurance products concludes that there is a low level of awareness about insurance products among customers in India. Fatima Alinvi (2008) suggests that customers change their preferences according to their life circumstances and while certain

preferences are well-defined others can be inconsistent. In an increasingly competitive environment, where insurance companies fight for the same customers, having a customer-oriented culture is extremely important not only to retain customers but also to acquire new ones.

From the above discussion it can be inferred that Mutual Fund and Life Insurance as an investment vehicles are capturing the attention of various segments of the society, like academicians, entrepreneurs, financial intermediaries, investors and regulators for varied reasons. But the existing studies on factors influencing selection of Mutual Fund and Life Insurance schemes are very few and very little information is available about investors' perceptions, preferences, attitudes and behavior. Yet again all efforts in this direction are fragmented. Thus this paper makes an earnest attempt to study the behavior of the retail investors, a class who got less attention in research, in their selection of the Mutual Funds and Life Insurances products in an Indian perspective.

### 9. Data Collection and Methodology

Due to constraints of resource and time along with preliminary nature of this investigation, only 100 interviews were made from two metros of Orissa viz.; Cuttack and Bhubaneswar. Simple random sampling was followed to select the sample. To obtain a probability sample, considerable effort was devoted to selecting the appropriate sample plan. The unit of observation and analysis of this survey is an individual, who is at present a retail investor. Our definition of present retail investor is "An individual who has currently (i.e., as on August, September or October 2007) invested in any MF/Life Insurance scheme". The population was defined as residents of Cuttack and Bhubaneswar cities who have Mutual Fund/Life Insurance policy in any company.

A preliminary version of the questionnaire was developed in English on the basis of insights from in-depth qualitative interviews with experts, mutual fund investors/insurance policyholders. The instrument was then translated into local language (Oriya) and then re-translated until a panel fluent in English and Oriya agreed that the two versions were reasonably comparable. Besides, personal observation was done where necessarily applicable. A pilot survey was conducted in the cities and the questionnaire was improved in that light. Interviewers were given a letter of introduction from university so that respondents would see that the study was authentic. A telephone number was provided too, in case respondents wanted to verify the identity of the investigators or clarify questions of concern. Several difficulties were encountered during data collection. Few refused to grant interview because, being unfamiliar with such studies, they were suspicious of the interviewers or purpose of the study.

### 10. Tools and Techniques used

Tables, bar diagram and structures are used in explanations to bring out the point more clearly. Tabulation of the primary data was done. On the basis of these tables, trends came out more visibly. Other statistical techniques those are used in the present study include:

- a) *Percentage Method*: to show the trend of the variable.
- b) *Chi-square*: to test the independence of the attributes.
- c) *Two-way ANOVA*: to test the equality of the variances between two sets of variables.
- d) *Rank correlation*: to find the relationship between two variables.
- e) *Z-test*: to test the equality of two-population proportion.
- f) *t-test*: to test the significance of the results of rank correlation.
- g) *Kendall's concordance test*: to test the significance of agreement in ranking.

### 11. Hypotheses

(1) For analyzing the pattern of investment on the basis of Age, Education and Profession the following hypotheses are taken into consideration:

$H_0$ : There is no significant difference in investments avenues among the investors on the basis of their age, qualification and profession.

$H_1$ : There exists a significant difference in investments avenues among the investors on the basis of their age, qualification and profession.

$H_{1a}$ : There is a difference in the investment pattern amongst the investors of different age groups.

$H_{1b}$ : There is a difference in the investment pattern amongst the investors on the basis of their level of education.

$H_{1c}$ : Moreover, there is a difference in investment pattern among the investors based on their professions.

(2) For gender-wise analysis, the interest lies in taking the gender wise preference to the different investment pattern by using large sample Z-test, the hypothesis under consideration is:

$H_2$ : Males invest more as compared to females.

(3) For objective-wise analysis, the basic interest is to test the independence of two attributes (objective and investment pattern) by using  $\chi^2$  test, the hypothesis of interest is:

H<sub>3</sub>: The investment pattern is independent of the objective of investment.

(4) For company-wise analysis of life insurances, the significance of agreement amongst the respondents ranking can be tested by Kendall's concordance test. The hypothesis under consideration is:

H<sub>4</sub>: There is a disagreement in ranking.

(5) For company-wise analysis of the mutual funds, the significance of correlation coefficient in between the ranks is required to be tested by using the hypothesis:

H<sub>5</sub>: Two variables are not associated. (r = 0).

**12. Analysis and Interpretations**

*12.1 Age-wise Analysis*

Investors in any industry comprise people from different age groups and their investment pattern also differs significantly on the basis of age groups. For case in point, Alinvi & Maira Babri (2007) is of view that young customers become strategic group for companies within the financial industry. Therefore, understanding young customers' perspectives is important for financial companies to be able to provide the services they demand. The sample in our study constitutes investors from the age groups of: Under 25, 26-36, 37-47, 48-58 and above 58 and it corroborates to findings of the above study, i.e. majority of our respondents are young customers and they belong to the age group of 26-36. Again, as we are interested to know the difference in the investment pattern across different age groups, a two-way ANOVA is worked out for each of the following hypotheses:

H<sub>01</sub>: There is no significant difference in the investment pattern amongst the investors of different age groups.

H<sub>02</sub>: Different investment patterns do not differ much among themselves.

ANOVA Table-I				
Sources of Variation	d. f.	Sum of squares	Mean Sum of squares	F
Row (Investment Pattern)	5	83.37	16.674	F <sub>1</sub> =3.3481
Column (Age)	4	141.67	35.41	F <sub>2</sub> =7.11
Error	20	99.63	4.98	
Total	29			

F<sub>0.05</sub> (5, 20) = 2.71 < Cal. F<sub>1</sub> (Investment Pattern) ----- H<sub>01</sub> is rejected

F<sub>0.05</sub> (4, 20) = 2.87 < Cal. F<sub>2</sub> (Age) ----- H<sub>02</sub> is rejected

As both H<sub>01</sub> and H<sub>02</sub> are rejected, it is inferred that the investors have significant difference in the pattern of investment with respect to their age. Further to find out which of the row-means differ significantly, the Critical Difference (the least difference between any two means to be significant) was calculated and the results are as follows:

Critical Difference,  $CD = t_{0.05 \text{ for error d. f.}} \sqrt{MSE \left[ \frac{2}{r} \right]} = 6.58$ , where r = no. of replications

Category	Investment Pattern	Row mean
A	Bank FD	4
B	Shares	1.8
C	Mutual Funds	3.6
D	Life Insurance Policies	6.2
E	Govt. Saving Schemes	3.6
F	Others	0.8

After determining the critical differences and comparing the same with each other, it is observed that there is insignificant difference among the treatments A, B, C, D, and E (row wise). Again,

Critical Difference,  $CD = t_{0.05 \text{ for error d. f.}} \sqrt{MSE \left[ \frac{2}{r} \right]} = 6$ , where r = no. of replications

Category	Age	Column Mean
A <sub>1</sub>	Under 25	1
B <sub>1</sub>	26-36	6
C <sub>1</sub>	37-47	4.67
D <sub>1</sub>	48-58	4.33
E <sub>1</sub>	58 and above	0.66

Finding out the critical differences and comparing these with each other, we find insignificant difference among the treatments A<sub>1</sub>, B<sub>1</sub>, C<sub>1</sub>, D<sub>1</sub>, and E<sub>1</sub> (column wise).

(1) As H<sub>01</sub>, H<sub>02</sub> are rejected at 5% level of significance, we can conclude that different investment avenues do not provide the same level of satisfaction and also the investors differ in the choice of their investment avenues according to their age.

(2) But insignificant difference (row-wise and column-wise) implies that although the investment avenues are significantly different in providing satisfaction, the investors do not have considerable variation in their preferences on the basis of their age.

12.2 Educational Qualification-wise Analysis

Our sample consists of the investors, which spread on a cross-section of the different educationally qualified groups starting from tertiary to professional degrees. Majority of the respondents are graduates. The fundamental objective of this analysis is to find out whether the investment pattern varies with respect to the level of education or not. To authenticate this, a two-way ANOVA is worked out for testing each of the following hypotheses:

H<sub>01</sub>: There is no major deviation in the investment patterns amongst the investors on the basis of their level of education.

H<sub>02</sub>: Different investment patterns do not differ much among themselves.

Sources of Variation	d. f.	Sum of Squares	Mean Sum of Squares	F
Row (Investment Pattern)	5	85.33	17.066	F <sub>1</sub> =2.39
Column (Education level)	3	338.996	112.99	F <sub>2</sub> =15.84
Error	15	107.004	7.13	
Total	23			

F<sub>0.05</sub> (5, 15) = 2.90 > Cal. F<sub>1</sub> (Investment Pattern) ----- H<sub>01</sub> is accepted

F<sub>0.05</sub> (3, 15) = 3.29 < Cal. F<sub>2</sub> (Education level) ----- H<sub>02</sub> is rejected

As H<sub>01</sub> is accepted and H<sub>02</sub> is rejected at 5% level of significance, at this point it can be concluded that although the different investment patterns give more or less the equal level of satisfaction, there are still some variation among the investors basing upon their level of education. Consequently we are interested to know which pair of education-level differs most among them. To be more likely with the results, we find out the Critical Difference (CD) and the result is as follows:

Critical Difference,  $CD = t_{0.05 \text{ for error d. f.}} \sqrt{MSE \left[ \frac{2}{r} \right]}$  = 8.71, where r = no. of replications

Category	Education level	Column mean
A	Matriculates	0.5
B	Intermediates	0.5
C	Graduates & Post Graduates	9.0
D	Professional Degree Holders	6.66

By judging the critical difference and comparing these with each other, we find insignificant variation among the treatments of A, B, D (column wise), whereas the treatment C (Graduates & Post Graduates) differs most significantly

from others. The highest mean score for the graduate & postgraduate investors as shown above also corroborates our earlier observation in this context.

12.3 Profession-wise Analysis

By and large, investors from different professions invest for dissimilar purposes. The pattern of investment might have significant difference so far as their profession is concerned. For this purpose, a two-way ANOVA is furthermore worked out on the basis of following hypotheses:

H<sub>01</sub>: There is no difference in the investment pattern among the investors from different professions.

H<sub>02</sub>: Different pattern of investment do not differ much.

ANOVA Table -III				
Sources of variation	d. f.	Sum of squares	Mean Sum of squares	F
Row (Investment Pattern)	5	83	16.6	F <sub>1</sub> = 3.64
Column (Profession)	4	183	45.75	F <sub>2</sub> = 10.05
Error	20	91	4.55	
Total	29	357		

F<sub>0.05</sub>(5, 20) = 2.71 < Cal. F<sub>1</sub> (Investment Pattern) ----- H<sub>01</sub> is rejected

F<sub>0.05</sub>(4, 20) = 2.87 < Cal. F<sub>2</sub> (Profession) ----- H<sub>02</sub> is rejected

Thus it can be believed that, investors have extensive differences with respect to their professions and the different patterns of investment vary widely among themselves as well. Moreover, we have calculated the Critical Difference (CD) to find out which of the row-means differ significantly.

Critical Difference,  $CD = t_{0.05 \text{ for error d. f.}} \sqrt{MSE \left[ \frac{2}{r} \right]}$  = 6, where r = no. of replications

Category	Investment Pattern	Row mean
A	Bank FD	4.4
B	Shares	2.0
C	Mutual Funds	3.6
D	Life Insurance Policies	5.8
E	Govt. Saving Schemes	3.6
F	Others	0.6

Insignificant difference among the treatments A, B, C, D, E (row wise) was observed after calculating the critical differences and comparing these with each other. Again,

Critical Difference  $CD = t_{0.05 \text{ for error d. f.}} \sqrt{MSE \left[ \frac{2}{r} \right]}$  = 5.467, where r = no. of replications

Category	Occupation	Column mean
A <sub>1</sub>	Govt. Servants	7.16
B <sub>1</sub>	Businessmen	4.5
C <sub>1</sub>	Private Servant	3.66
D <sub>1</sub>	Students	0.6
E <sub>1</sub>	Others	0.6

Again, we find an insignificant difference among the treatments of B<sub>1</sub>, C<sub>1</sub>, D<sub>1</sub>, E<sub>1</sub> (column wise) and the treatment A<sub>1</sub> (Govt. servants) differs most from D<sub>1</sub> (Students) and E<sub>1</sub> (Others) after determining the critical differences and comparing these with each other. So it can be concluded that, on an average; the government servants are investing to the maximum extent, whereas the students and other professional groups are investing the least in mutual funds and insurance policies.

#### 12.4 Gender-Wise Analysis

Though men and women are two sides of the same coin, women still have the main responsibility for meeting household needs and are therefore a major force in determining consumption trends. As such, women have an essential role to play in the development of economically sound consumption and production patterns.

For this purpose, we have performed the large sample test (Z) in order to invalidate the proposition that men invest more than women. For the purpose, the following hypotheses are taken into consideration:

Null hypothesis:  $H_0 : P_1 = P_2$

Alternative hypothesis:  $H_1 : P_1 > P_2$  (right-tailed test)

Test statistic:

$$Z = \frac{P_1 - P_2}{\sqrt{\{PQ(\frac{1}{n_1} + \frac{1}{n_2})\}}}$$

Where,  $P_1$  = Population proportion of males

$P_2$  = Population proportion of females

$n_1$  = Total no. of males in the sample = 70

$n_2$  = total no. of females in the sample = 30

Level of significance is 5% = 0.05

$$P = \frac{n_1 P_1 + n_2 P_2}{n_1 + n_2} \text{ and } Q = 1 - P$$

$P_1$  = Sample proportion of male =  $(50/70) = 0.714$

$P_2$  = Sample proportion of female =  $(10/30) = 0.30$

Thus,  $P = 0.60$  and  $Q = 0.40$

$$Z = \frac{0.60 - 0.30}{\sqrt{\{0.60 \times 0.40(\frac{1}{70} + \frac{1}{30})\}}} = 2.80$$

$Z_{\text{tab}} = 1.96$  at 5% level of significance.

As  $Z_{\text{cal}} > Z_{\text{tab}}$ ,  $H_0$  is rejected and  $H_1$  is accepted, accordingly it can be established that men are dominating in Indian mutual funds and life insurance industry as compared to women.

#### 12.5 Objective-wise Analysis

Different investors enter in the investment industry with different objectives in mind. Some investors could have multiple intentions. Jambodekar (1996) found that investors look for safety of principal, liquidity, capital appreciation and many others in the order of importance. However for the sake of convenience, we have restricted our study to the objectives of safety of principal, capital growth, regular income, tax saving, and retirement plan. This analysis automatically led to the testing of following hypothesis:

$H_0$ : The pattern of investment is independent on the objective of investing

$H_1$ : The pattern of investment is dependent on the objective of investing

The validity of testing above was achieved by applying  $\chi^2$  (chi-square) test.

$$\chi^2 = \sum \left[ \frac{(O - E)^2}{E} \right] = 26.645 > 24.996 \text{ (Tab. Val of } \chi^2_{(0.05)} \text{ at 15 d. f.)}$$

Thus,  $H_0$  is rejected and  $H_1$  is accepted concluding that the pattern of investment is dependent upon the objective of investing. Majority of the investors (35%) are investing for capital growth, followed by the tax saving objective (28%) and regular income 20%. On the other hand, only 17% of them are investing for the retirement plan.

#### 12.6 Scheme and Income-wise Analysis

Normally, the investment pattern depends on individual income of the investor. To analyze this we have collected data on a 3-point scale and obtained the following results.

Maximum investors (30%) like to invest in *life insurance policies* followed by *mutual fund* (20%) and *government saving schemes* (18%).

Majority of the respondents (58%) belongs to the income group (2.5-5lakhs) followed by (5-7.5 lakhs), and one interesting observation we found, i.e. 75% respondents of the income group (2.5-5lakhs) prefer to invest in the *life insurance policies*.

### 13. Mutual Fund vs. Life Insurance

The above results obviously lead to the fact that life insurance policies and mutual funds are two most preferred avenues for retail investors. For this reason we are enticed for a comparative study on Life Insurance Policies and Mutual Funds.

#### 13.1 Company-wise analysis of Life insurance

Of all the top life insurance companies in India, we have included only LIC, ICICI, SBI and HDFC for this study. The pilot survey conducted on a small group of sample investors is the basis of choosing these companies. Out of 30 respondents approached, 20 of them gave the favorable responses to above companies. The data had been collected using ranking method and the companies were ranked on the basis of the responses given by the respondents.

Particulars	LIC	HDFC	ICICI	SBI	Total
Rank sum (SR)	40	59	40	61	200
(SR) <sup>2</sup>	1 600	3 481	1 600	3 721	10 402

By *Kendalls' Coefficient of Concordance*, we could able to estimate the relationship and test whether the different respondents are in agreement or not. The results are as follows:

H<sub>0</sub>: The respondents have disagreement in ranking.

H<sub>1</sub>: The respondents have agreement in ranking.

Test statistic

Kendall's coefficient of concordance is given by the following rule

$$W = \frac{S}{\frac{1}{2}k^2(n^3 - n)}, n = 4 \text{ (no. of companies ranked), } k = 20 \text{ (no. of respondents).}$$

Where,

$$S = \sum (SR)^2 - n(\overline{SR})^2 = 10\,402 - 4 * 2\,500 = 402$$

$$W = \frac{S}{\frac{1}{2}k^2(n^3 - n)} = 402 / 2\,000 = 0.201$$

$$\overline{SR} = \frac{(n+1)k}{2} = 50, \text{ if we had complete disagreement, every applicant would have a rank sum of 50.}$$

Kendall's Coefficient of Concordance approximately follows  $\chi^2 = k(n-1)W = 20 * 3 * 0.201 = 12.06$  with (n-1) d. f.

$$\chi^2(\text{cal.}) = 12.06 > \chi^2(\text{tab with 3 d. f. and at 5\% level of significance}) = 7.81$$

As H<sub>0</sub> is rejected, we can conclude that respondents have the nearest approach to the same ranking.

From the survey it is found that a large group of Indian retail investors (49%) ranked LIC as number one, ICICI (29%) as number two and HDFC (15%) as number three and SBI (7%) as number four.

#### 13.2 Sector-wise Analysis of Life Insurance Companies

Sector wise analysis of Life insurance Companies	
Sector	Investors' Preference (%)
Public	68
Private	32
Total	100

When many investors are interested to invest in life insurance policies, they might have preference for a particular

sector, i.e. private or public. Many are of view that the private sector brings superior changes and more investor-friendly than the public sector. But in case of life insurance we got the reverse scenario as shown in the following table.

Majority (68%) of the investors are of the opinion that the public sector is better than the private sector.

### 13.3 Company-Wise analysis of Mutual Funds

The mutual fund route of investment has unique characteristics that make it significant to the retail investors. The growing popularity of funds is not because of the booming stock market, but due to the fact that it offers the best in terms of variety, liquidity, tax efficiency, flexibility, diversification and professional money management. To know the preferences of the investors towards leading Mutual Fund companies, the data had been collected over three characteristics, Brand image, Past Performance, and Volume of the business using ranking method. The following table is constructed on the basis of the majority of the decision furnished by the respondents.

Company	Brand Image (x)	Past Performances (y)	Volume of Business (z)
ICICI	1	2	2
Kotak	4	3	4
UTI	2	1	3
Reliance	3	4	1
Birla	5	5	5

In order to know the relation in between x, y, z, we have worked out Spearman's Correlation coefficient (Rank correlation coefficient) pair wise.

$$R_{xy} = 0.975, R_{xz} = 0.7, R_{yz} = 0.883$$

$R_{xy}$  = The correlation coefficient between the brand image and the past performance (0.975) is maximum; it shows a very high degree of positive correlation in between the said variables.

Then the significance of the coefficient of rank correlation was tested by using small sample ('t') test.

$H_0$ : Two variables are not associated, i.e.,  $r = 0$

$H_1$ : Variables are associated

Test statistic

$$t = r \sqrt{\frac{(n-2)}{1-r^2}} = 0.975 \sqrt{\frac{(5-2)}{1-0.975^2}} = 7.59$$

Calculated value of 't' is 0.125 and the tabulated value of 't' with (n-2=3) d. f. is 2.353

As Cal. value < Tab. Value,  $H_0$  is rejected and  $H_1$  is accepted.

Therefore it can be said that the variables, *past performance* and *Brand image*, are closely associated in case of Mutual funds.

#### 13.3.1 Distribution of Investors choice between Open- and Close-ended Funds

While carrying out the current study, a sample-respondent of 20 mutual fund investors, from the various categories, were asked about their preference between open-ended and close-ended schemes in order to evaluate the popularity of these two. 63% of the investors like to invest in open-ended MF schemes, whereas only 36% prefer Close-ended ones.

### 13.4 Demographic Variable-wise Analysis

This analysis involves segmenting the respondents according to their income, education and the occupation. It is done to find out the level of investment in Mutual Funds and Life Insurance Policies.

13.4.1 Income: The annual income of the respondents was taken as one of the variables for classification. The income group of Rs. 1-2.5 lakhs invests a lot, whereas the investors in the income group of Rs.7.5 lakhs and above invest a little.

13.4.2 Profession: The preference-analysis of respondents according to their profession indicates greater differences in certain segments. Government and the private sector employees don't have the same idea towards every investment category. When LIC is more preferred mode of investment among the Government servants, the MFs is more favored amongst the private sector employees.

13.4.3 Educational Qualification: To analyze the investors' preferences over their educational level, the data under four

scale levels - under graduate, graduate, postgraduate and the professional degree - had been collected. It is observed that the graduate & postgraduate investors are investing more in life insurance and the professional people are investing more in mutual funds.

### 13.5 Major sources of the information for Investors

There are many sources from which investors get the information regarding availability of various investment avenues. The most popular among them is found to be the newspaper (40%). 32% of the investors identify agents, 15% identify friends, 7% identify distribution houses as their main source of information, whereas only 6% get information directly from the company.

<i>Sources of Information</i>	<i>Percentage of the Investors</i>
Agents	32
Direct from company	6
Distribution House	7
Friends	15
Newspaper and Magazines.	40

## 14. Conclusion and Findings

Under the study, the researchers have tried to sketch the behavioral pattern of retail investors towards two important investment opportunities, i. e., mutual fund and life insurance. A couple of hypothesis in this regard have been selected and tested to reach to conclusions. And the research concludes with some important findings that will be valuable for both the investors and the companies having such investment opportunities.

- (1) It is found that, the different investment pattern do not provide the same level of services with respect to age of the retail investors in India.
- (2) Although the investment patterns provide more or less the same service, there exist differences depending on the education level of the investors. It is observed that investors with the graduate & postgraduate level of academic qualification are investing more in life insurance and the professionals are investing more in mutual fund.
- (3) The investors have a wide difference with respect to their profession and also the different investment patterns vary widely.
- (4) It is found that on an average; the government servants are investing to the maximum extent (7.16%), where as the students and other professional groups are investing the least (0.6%).
- (5) Male investors are more as compared to females in Indian retail market.
- (6) It is clear that majority of the people (35%) are investing with the objective of capital growth, followed by Tax saving (28%) and only 17% are investing for the Retirement plan.
- (7) Maximum investors (30%) like to invest in life insurance followed by mutual fund (20%) & Government saving schemes (18%).
- (8) Majority of the respondents (58%) belongs to the income group of 2.5-5 lakhs, followed by 5-7.5 lakhs income group.
- (9) 75% of the investors in the income group of 2.5-5lakhs prefer to invest in the life insurance.
- (10) 52% of the investors ranked LIC as number one, 33% ranked ICICI as number two and 15% ranked HDFC as number three in Indian insurance industry.
- (11) Majority (68%) of the investors is of view that the public sector insurance is better than the private sector.
- (12) The brand image and the past performance of the Mutual funds are highly positively correlated (0.975).
- (13) The variables, past performance and Brand image of the Mutual funds are more closely associated.
- (14) 63% of the investors like to invest in open-ended Mutual fund schemes, whereas only 36% prefer Closed-ended ones.
- (15) Investors who lie within the income group of Rs.1-2.5 lakhs invest a lot, whereas the investors in the income group of Rs.7.5 lakhs and above invest a little either in mutual fund or in life insurance.
- (16) The Government servants invest more in life insurance and the private sector employees in Mutual funds.

(18) 40% of the investors are in view that Newspaper and magazines is the main source of information, whereas only 6% get information directly from company.

## References

- Alinvi, F. & Babri, M. (2007). Customers' Preferences of Insurance Services. *Bachelor Thesis*, International Business Program.
- Barber, B. M. and Odean, T. (2004). Are Individual Investors Tax Savvy? Evidence from Retail and Discount Brokerage Accounts. *Journal of Public Economics*, 88 (1-2), 419-442.
- Black, K. and Skipper, H. D. (2000). *Life and Health Insurance*. Upper Saddle River, NJ: Prentice-Hall.
- Brown, S. J., W. N. Goetzmann, T. Hiraki, N. Shirishi, and M. Watanabe. (2003). *Investor Sentiment in Japanese and US Daily Mutual Fund Flows*. NBER.
- Black, B. (2004). Are Retail Investors Better Off Today? *Brooklyn Journal of Corporate, Financial & Commercial Law* (Forthcoming), Cincinnati Public Law Research Paper No. 07-34, available at SSRN: <http://ssrn.com/abstract=1085744>. Bottom of Form
- Chakrabarti, A. and Rungta, H. (2000). Mutual Funds Industry in India: An indepth look into the problems of credibility, Risk and Brand. *The ICFAI Journal of Applied Finance*, 6 (2), 27-45.
- Das, S. R., Martinez-Jerez, F. de A. and Tufano, P. (2005). eInformation: A Clinical Study of Investor Discussion and Sentiment. *Financial Management*, 34 (3), 103-137.
- Enz, R. (2000). The S-Curve Relation Between Per Capital Income and Insurance Penetration. *The Geneva Papers on Risk and Insurance – Issues and Practice*, 25 (3), 396 – 406.
- Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, 25 (2), 383-417.
- Goetzman, W. N. and Peles, N. (1997). Cognitive Dissonance and Mutual Fund Investors. *The Journal of Financial Research*, 20 (2), 145-158.
- Gupta, L. C. (1994). *Mutual Funds and Asset Preference*. Delhi: Society for Capital Market Research and Development.
- Hartman, J., Shim, B. S., Barber, B. and O'Brien, M. (2006). Adolescents' Utilitarian and Hedonic Web Consumption Behavior: Hierarchical Influence of Personal Values and Innovativeness. *Psychology & Marketing*, 23 (10), 813-839.
- Ippolito, R. (1992). Consumer reaction to measures of poor quality: Evidence from Mutual Funds. *Journal of Law and Economics*, 35, 45-70.
- Jambodekar, M. V. (1996). Marketing Strategies of Mutual Funds – Current Practices and Future Directions, Working Paper, *UTI – IIMB Centre for Capital Markets Education and Research*, Bangalore.
- Kahneman, D., Knetsch, J. L. and Thaler, R. H. (1991). The Endowment Effect, Loss Aversion, and Status Quo Bias: Anomalies. *Journal of Economic Perspectives*, 5 (1), 193-206.
- Khorana, A. and Servaes, H. (1999). Retail Investor Sentiment and Return Co movements. *Journal of Finance*, 61, 2451–2486.
- Kulshreshta, C. M. (1994). *Mastering Mutual Funds*. New Delhi: Vision Books.
- Lee, C. M. C., Shleifer, A. and Thaler, R. H. (1991). Investor Sentiment and the Closed-End Fund Puzzle. *Journal of Finance*, 46 (1), 75-109.
- Lindley, D. (2007). Imperfect Information for consumers. *Consumer Policy Review*, 17, 74-79.
- Lynch, A. W. and Musto, D. K. (2003). How investors interpret past fund returns? *Journal of Finance*, 58 (5), 2033–2058.
- Odean, T. (1999). Do Investors Trade Too Much, *American Economic Review*, 89 (5), 1279-1298.
- Omar, O. E. and Owusu-Frimpong, N. (2007). Using the theory of reasoned action to evaluate consumer attitudes and purchase intention towards life insurance in Nigeria. *The Service Industries Journal*, 27 (7), 1-14.
- Keli, P. (2005). *A Theory of Cognitive Dissonance*. Stanford: Stanford University Press.
- Rajarajan, V. (1998). Stages in Life Cycle and Investment Pattern. *The Indian Journal of Commerce*, 51 (2 & 3), 27-36.
- Rajeswari, T. R. and Moorthy, V. E. R. (2005). An Empirical Study on Factors Influencing the Mutual Fund/ Scheme Selection by Retail Investors. *Indian Capital Markets – Trends and Dimensions (ed)*. New Delhi: Tata McGraw-Hill.

Sen, S. and Madheswaran, S. (2007). Are Life Insurance Demand Determinants Valid for Selected Asian Economies and India? *Paper for Presentation at the 11<sup>th</sup> Annual Meeting of APRIA, NCCU Taipei, July 22-25 2007*, 3.

Shankar, V. (1996). Retailing Mutual Funds: A consumer product model. *The Hindu*, 24 July, 26.

Shanmugham, R. (2000). Factors Influencing Investment Decisions. *Indian Capital Markets – Trends and Dimensions (ed)*. New Delhi: Tata McGraw-Hill Publishing Company Limited.

Sikidar, S. and Singh, A. P. (1996). Financial Services: Investment in Equity and Mutual Funds – A Behavioral Study. In B. S. Bhatia and G. S. Batra, (eds). *Management of Financial Services*, New Delhi: Deep and Deep Publications, 136-145.

Sundar, S. P. V. (1998). Growth Prospects of Mutual Funds and Investor perception with special reference to Kothari Pioneer Mutual Fund. *Project Report*, Sri Srinivas Vidya Parishad, Andhra University, Visakhapatnam.

Tripathy, N. P. (1996). Mutual Fund in India: A Financial Service in Capital Market. *Finance India*, 10 (1), 85–91.

Warther, V. A. (1995). Aggregate Mutual Fund Flows and Security Returns. *Journal of Financial Economics*, 39, 209-235.

Whaley, R. E. (2000). The Investor Fear Gauge. *Journal of Portfolio Management*, 26 (3).

Zhang, S. and Dhar, R. (2000). Constructing Preferences: The Role of Comparisons in Consumers Judgment and Choice, *Advances in Consumer Research*, 27 (1), 101-110.

Zheng, L. (1999). Is money smart? A study of mutual fund investors' fund selection ability. *Journal of Finance*, 54, 901-933.

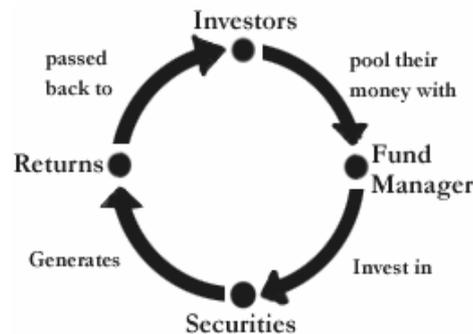


Figure 1. Working of a Mutual Fund

Table 1. Volume of Savings in India in Crore Rupees (at current prices)

Sector	1980-81		1990-91		1998-99	
	Value	Percent	Value	Percent	Value	Percent
Household Savings	21848	75.8	109623	84.4	325456	82.7
Private Savings	2284	8.0	14940	11.5	67573	17.2
Public Savings	4654	16.2	5436	4.1	5720	0.1
Total	28786	100	129999	100	393601	100

Table 2. Projection of life insurance and non-life insurance premiums, 2004-2014

Years	Life Insurance		Non-life Insurance	
	INR m	INR m, constant 2004 prices	INR m	INR m, constant 2004 prices
2004	749 971	749 971	203 856	203 856
2005	871 672	834 136	234 323	224 233
2006	1 025 957	934 358	271 830	247 561
2007	1 201 425	1 042 105	315 522	273 680
2008	1 403 362	1 159 284	368 094	304 074
2009	1 667 814	1 312 134	429 750	338 101
2010	1 983 051	1 485 832	496 953	372 350
2011	2 366 576	1 688 756	572 727	408 690
2012	2 804 561	1 905 996	651 736	442 924
2013	3 326 543	2 153 072	734 778	475 578
2014	3 947 899	2 433 546	828 433	510 659
Average growth rate between 2004-2014	18.1%	12.5%	15.1%	9.6%

Source: Swiss Re Economic Research &amp; Consulting



## Basic Theoretical Problems in Pension Accounting

Junxun Li

School of Management, Xi'an Polytechnic University, Xi'an 710048, China

Tel: 86-29-8233-0197 E-mail: dmezy@163.com

Xiaoyan Wei

Shaanxi Branch, Zhongrui Yuehua Certified Public Accountants Co., Ltd, Xi'an 710068, China

Tel: 86-29-8100-5139 E-mail: yan5252020@sina.com

### Abstract

Pension accounting is an important branch of financial accounting and also an active field in studies on accounting theories and practice of accounting. In this paper, authors discuss the property of pension and relevant accounting principles, the content of pension accounting, the pension plan, etc. Authors mainly discuss related problems in enterprise pension planning from types of pension and pension plan.

**Keywords:** Pension, Pension accounting, Pension plan

### 1. The origin and evolvement of pension

Pension, namely retirement pay, refers to a sum of money for retired man. Property of pension is a historical concept and has various explanations during different times. To probe into the property of pension, we must start from the origin and evolvement of pension.

In England, before 20th century, the pension was a kind of largess given by the King to aged respectful officers, or the master to old and hopping servants, or the owner to hired hands. As a reward to their diligent work, the largess can guarantee a comfortable life once they are incapable of work due to poor health.

In China, before last century, almost no document mentions the pension clearly. In those historical documents, the "pension" was separated into "provide for the old" and "money". The explanation for "provide for the old" in *Ci Hai* (a great Chinese dictionary): an old manner, to give certain qualified aged people wine and food on schedule. The Five Systems in *Book of Sites*: "to provide for the old, in Yu Dynasty is to follow the Yan manner, in Xia Dynasty with food, in Yin Dynasty with eating manner, and in Zhou Dynasty is to modify those methods and apply all of them. The aged in fifties are supported by counties, in sixties by national primary and middle schools, and in seventies by colleges." Xuan Zheng notes: "national primary and middle schools, in left of the Palace; colleges, in suburb. Yingda Kong explains: "the Huang says: 'four kinds of old people are supported by the Emperor: the first is the respectful and experienced old people; the second is the old people whose sons or grandsons are died for the country; the third is the retired meritorious people; the fourth is common old people at different ages.'" Therefore, since ancient China, the emperors provide for a few of qualified old people. Besides, from some Chinese folk plays, we can know that in history the emperor usually gives a sum of money to retired officers for life. The money is the "pension".

Apparently, before 20th century, pension appeared in China and foreign countries in a sense. However, the pension in old days is different from that today. Originally, the pension is merely a kind of largess for few people, which has nothing to do with the income during the employment. The pension is to inspire people's motive. In nature, the original pension is a kind of reward. For the emperor, master, or owner, pension is an extra burden. Therefore, if we make accounting treatment with the pension paid by them, the pension should be listed as "non-operating expense" as it happens. Entering 20<sup>th</sup> century, along with continuous social development and scientific and technological progress, the population rises dramatically and labor supply exceeds the demand. Enterprises, on one hand, have to keep in replacing the low-efficient aged employees for the sake of productivity. On the other hand, medical science prolongs people's life. As a result, lots of aged people without jobs have to maintain their lives for a long time. At the very beginning, the state or the government can provide an allowance for them. Meanwhile, they can make it by themselves or family support. However, retired people are more and more. For example, in 1960 in Japan people above more than 65 years old account for 5.7% of total population, and in 1988 the percentage reaches 11.2%. In England, the retired people are about 20% of employed people in 1948, and in 1978 the percentage rises to 28%. Under this circumstance, the state allowance and family support are far from sufficiency. Therefore, the duty to help the retired people maintain their lives must fall

to enterprises which they have worked for. In fact, the improved overall efficiency derived from replacing the old can ensure the expenses for the retired people. In 1935, the first "Social Security Act" in the world was issued in England. It forces enterprises to improve the pension for employees by law. Afterwards, the pension is not only connected with few people or a largess any more. It has something to do with every employee. The pension's function as a reward disappears accordingly.

Obviously, in modern times, pension is the costs paid by enterprises for replacing aged employees because of their low inefficiency in order to maintain high overall productivity. Therefore, for retired employees, to obtain pension is a legal right. For enterprises, to pay for pension is a duty. The sum of pension is based on labors of employees. It is a part of employees' total salaries. In nature, it is a kind of deferred payment for labors, namely the "deferred wage". From an accounting angle, according to the accrual basis, as a kind of deferred payments for labors, the pension should be paid periodically and listed as current costs.

## **2. The contents of pension accounting**

Before we study the contents of pension accounting, firstly we look at the popular ways in world for pension calculation and payment. In general, there are three modes: (1) Enterprises deduct and save pensions according to certain proportion and manage the pensions by themselves. As employees are retired, enterprises will pay off pensions in one time or several times. (2) Enterprises deduct pensions according to certain proportion and give them to a special institution manipulated by the state to manage the pensions. As employees are retired, the special institution will pay off pensions in one time or several times. (3) Enterprises buy pension insurances for employees. As employees are retired, the insurance company will pay off pensions in one time or several times. Based on the three modes, the contents of pension accounting include two parts. Firstly, the enterprises accountants deal with the pensions as deferred labor payments periodically and ensure enterprises' duties. Secondly, the pension accounting is under the control of enterprises or special institutions or insurance companies. To be exact, the second part belongs to the scope of fund accounting. It concerns pensions' investments in funds, return, increase, and decrease, and should be calculated by many professionals.

## **3. The pension plan**

The sum of pension and its payment directly affect people's daily life, as well as the national finance and taxation. Therefore, it is necessary to organize and manage pensions systematically, and program the pensions. In other words, we must set up a pension plan. In western developed countries, there are two kinds of pension plans in general: the state pension plan and the enterprise pension plan.

### *3.1 The state pension plan*

The state pension plan is programmed by the government in general. Its capital resources include appropriations from finance department and fares paid by enterprises and employees according to certain proportion. The state pension plan adopts a two-layer system. At the first layer, the pension is not connected with employees' income. It offers a basic and lowest pension. At the second layer, namely the "accumulated state pension" is associated with the income. Generally speaking, enterprises can replace the "accumulated state pension" with self-constituted enterprise pension plan. In addition, in different countries, their state pension plans account for various percentages of total pensions. In America, England, and France, the proportions of state pension plans to total pensions are low, but the enterprise pension plans develop very well, which accounts for a higher proportion of total pensions. In Italy, conditions are different. At present, population aging brings about high pensions and medical expenses. High welfare policies make the state finance bear more and more burdens. Under this circumstance, enterprise pension plan will become more popular. So do pensions supplied by enterprise pension plans. The proportion of pensions supplied by enterprise pension plans to total pension will keep in rising. Therefore, enterprises will be more careful in constituting pension plans.

### *3.2 The enterprise pension plan*

The enterprise pension plan includes the promise of paying pensions according to fixed rules and the finance safety that ensures the payment of pensions. Its capital funds are from fares paid by employees and enterprises. To build up enterprise pension plans means to make a long-term promise for participants, namely employees in enterprises. In order to carry out the promise, enterprises must constitute complete pension plan institutions.

#### **3.2.1 The procedures of making up enterprise pension plans**

In general, it has three procedures as follow:

- (1) Make up written enterprise pension plan, in which specifically regulate the qualifications for employees participating in this plan, the bases for calculating pensions, and how to collect and manage the capitals or assets for pensions.
- (2) During the employment period, record expenses for pensions and debts or assets of pensions, and pay appointed pension-entrusted institutions (usually, the pension fund is managed by an entrusted institution that is independent from

the enterprise) cashes.

(3) As employees are retired, make sure that retired employees can get promised retirement pension from the pension fund. What's more, the pension plan should include other welfares besides pensions, such as medical insurance, after the retirement.

### 3.2.2 The types of enterprise pension plans

The enterprise pension plans have many types. In general, they are:

(1) According to whether employees participate in pay expenses for pensions or not, there are relative participation plan and non-relative participation plan. The first type is to pay expenses for pensions by both enterprises and employees, and the second is by enterprises only.

(2) According to whether employees' pensions are predetermined or not, there are predetermined pension plan and predetermined deposit plan. The first type refers to the pension obtained by employees after retirement. It can be calculated by fixed formula written in pension plan. In other words, it is predetermined. However, enterprises' deposit pension fund is uncertain. It means pension plan's performance risk falls to enterprises. The second is quite the reverse. Enterprises save deposits for pensions in pension fund entrusted institution periodically according to rules in enterprises pension plans. In other words, enterprises deposit pension funds are predetermined. But pensions obtained by employees after retirement are not, which are determined by the operations of pension plans.

Besides, in western countries, an enterprise can make up two or more pension plans, or build up one pension plan with several enterprises, or construct insurance pension plan that is to sign a pension contract with insurance company in name of each employee or the staff. The enterprise pays insurances annually. As employees are retired, they get retirement pay directly from the insurance company. By this way, the enterprise transfers its legal responsibility of paying employees pensions to the insurance company, as well as relevant risks and returns in paying insurances. In general, among all these pension plans, the most typical is the one with employees' relative participation and determined by one enterprise.

## 4. Conclusion

China has already entered the population aging times and to emphasize on the construction of pension system has become an important problem in economic development. After years of practices, western countries have constituted their proper pension insurance systems respectively, as well as a set of perfect system for pension accounting. In China, it is still at an exploration stage. China's pension insurance system reform has begun in 1984 in some pilot districts. After more than ten years' exploration, a set of pension insurance mode right for China comes into being at present. Along with the deepening reform of pension insurance system in China, the construction of China's pension insurance system will improve employees' pensions wholly.

## References

Ministry of Finance, People's Public of China. (2006). *Pension Plan (Abridged) --- ARB43*. Beijing: China Renmin University Press. p69-70.

Yuan, Zhi. (2005). *Practice of Accounting in Private Non-Government Organizations*. Beijing: Economic Science Press. p126-127.

Wang, Donghao. (2005). The reform and development of social security system in China. *Journal of Sun Yatsen University (Social Science Edition)*. No.1. p76-77.



# On the Construction and Evaluation of Power Supply Enterprise's Strategic Capability

Shengming Hou

Business Administration School, North China Electric Power University, Beijing 102206, China

E-mail: kangwei63@yahoo.cn

## Abstract

It is extremely important to make a scientific evaluation on enterprise's strategic capability. Focusing on the power supply enterprise, this paper designs a "five-force" mode composed by strategic capabilities and advances a complete strategic capability evaluation system. In addition, this paper proves the system's feasibility and practicability by case study. To sum up, this paper provides with an effective method for the evaluation of power supply enterprise's strategic capability.

**Keywords:** Strategic capability, Power supply enterprise, Analytic hierarchy process (AHP)

## 1. Introduction

In enterprise management, in order to adapt to changes of environment and allocate resources effectively and obtain better effects, to possess stronger strategic capability is an indispensable factor for the enterprise. The study of enterprise's strategic capability evaluation can help the enterprise evaluate its strengths more exactly and comprehensively. Understand its advantages and disadvantages. Develop the advantages and improve the disadvantages. Enhance the strengths from all aspects instead of one aspect. Finally realize the enterprise's long-term coordinative development and sustain its initiatives in competition in the long run. As a result, the enterprise can obtain better corporate performance. Therefore, the exact evaluation of enterprise's strategic capability serves as the base of management, which provides with a relatively real and reliable basis for managers in making decision.

## 2. The connotation of strategic capability

For an enterprise in its whole development process, as the enterprise can make up relevant enterprise strategy, implement relevant strategic management methods, and guarantee an effective application of enterprise strategy, the enterprise possesses strategic capability. The cultivation and utilization of enterprise's strategic capability are the sufficient conditions for the enterprise creating sustainable competitive advantages and the key ensuring the enterprise's sustainable development (Wensong Zhang, 2005; Xiaoping Xu & Wei Liu, 2006).

Differing from common industrial enterprises, the power supply enterprise is a special enterprise that aims at transferring, distributing, and selling electricity. Its production and operation have unique characteristics and follow special laws. Based on the enterprise's strategic capability discussed above and the operational characteristics of power grid enterprise, we conclude the features of power supply enterprise's strategic capability as follow:

### (1) Regionalism

As a kind of natural monopoly industry, the main business operation of power supply enterprise is to transfer, distribute, and sell electricity. Its operation is affected apparently by the region. The economic and social development of the city where the power supply enterprise locates determines its development rate and scale to a great degree.

### (2) Comparability

In order to study the power supply enterprise's strategic capability, we can compare the present strategic capability with the former strategic capability or make comparison in the same industry, find out the gap, explore the reasons for the increase of decrease of strategic capability, and make progresses from one aspect or several aspects. On the other hand, we can compare the power supply enterprise with others in the same industry, position the power supply enterprise and make it learn from the excellent enterprises in the industry.

### (3) Dynamic character

The dynamic character of power supply enterprise's strategic capability means the strategic capability changes along with the changes of market structure and competition behaviours, and the changes of enterprise's organizational structure. In other words, the advantages or disadvantages of the enterprise are not eternal.

#### (4) Integrity

The strategic capability is the product of enterprise resource allocation as well as the product of integrating enterprise's business system and management system. The lack of any necessary resource or the imperfect integration of certain ring in systems will affect the cultivation and construction of strategic capability.

#### (5) Process character

The cultivation, construction, development, and declination of power supply enterprise's strategic capability need a process. As the power supply enterprise carries out its strategy, what the strategic capability focuses on is different at different stages. Therefore, the power supply enterprise should completely realize which stage it reaches in the life cycle and chiefly cultivate the capability that affects the whole strategic capability greatly.

### 3. The construction of power supply enterprise's strategic capability

The study of strategic capability aims at realizing the enterprise's sustainable growth and development by constantly improving its strategic values. The decomposition of strategic capability is to make the study of strategic capability more practical and operational. To decompose the abstract and implicit strategic capability into quantitative indexes and operational factors is to help the enterprise analyze, evaluate, and supervise its strategic capability and the changes on one hand. On the other hand, it is to compare the enterprise's strategic capability with others', providing with operational ways and methods for the enterprise cultivating, improving, and perfecting its strategic capability (Bin Yang & Changtie Zhao, 2007, p152-156).

Therefore, according to the viewpoints of the capability school and the resource school, we design the "five-force" mode for the construction of enterprise's strategic capability from the angle of production and operation process, based on the power supply enterprise's business management needs. The "five-force" of the enterprise includes the decision capability, the execution capability, the innovation capability, the culture capability, and the operation capability. The enterprise decision is the start of all business activities. The decision can generate definite business means, collecting strengths by the lead process, and regulating behaviours by the management process. All will be embodied in the execution. Whether the enterprise decision can be executed effectively or not is determined by the decision capability. Corporate culture is the sum of values, creeds, and behavioural regulations shared in the enterprise. Corporate culture is the soul of an enterprise. It is the top guiding rule for employees' behaviours. By influencing employees' behaviours and thoughts, it can affect the enterprise's decision, innovation, and execution. Innovation is the source of enterprise's sustainable development and the motive of enterprise's all sources and capabilities exerting their effects. Innovation can effectively drive the improvement of enterprise's all capabilities. Therefore, innovation is the core of strategic capability. The enterprise's decision, execution, innovation, and culture determine its operation performance. In the continuous production and operation process, the operation performance can affect the enterprise's decision, execution, innovation, and culture conversely. The specific structure is displayed in the figure 1.

### 4. The power supply enterprise's strategic capability evaluation model

#### 4.1 The selection of evaluation indexes

In order to get the exact and effective evaluation results, the selection of evaluation indexes should follow the principle of being systematic, comprehensive, rational, and effective. We evaluate the power supply enterprise's strategic capability from five aspects, namely the decision capability, the execution capability, the innovation capability, the culture capability, and the operation capability. In addition, we divide these five forces further and construct a multi-factor index system for the strategic capability evaluation (see table 1).

#### 4.2 The establishment of index weight

According to the characteristics of the index system for the enterprise's strategic capability evaluation, in order to make every index weight in accord with objective practice, this paper adopts the analytic hierarchy process (AHP) to establish the index weight.

The author takes the calculation of the weights of management structure, decision mechanism, and risk management ability versus that of decision capability as example, using the AHP to establish the weights of indexes.

(1) Establish the judgement matrix according to the importance of management structure, decision mechanism, and risk management ability to decision capability.

(2) Calculate the multiplication of each line in the matrix  $M_i$ , make the n evolution of  $M_i$  and get the n root  $\overline{W}_i$ .

$$\sqrt[3]{1*1*5} = \sqrt[3]{5} = 1.71$$

$$\sqrt[3]{1*1*5} = \sqrt[3]{5} = 1.71$$

$$\sqrt[3]{1/5*1/5*1} = \sqrt[3]{1/25} = 0.34$$

(3) Normalize the vector  $\bar{W}_i$  and get the eigenvector  $W_i$ , namely the index weight.

$$\begin{bmatrix} \frac{1.71}{1.71+1.71+0.34} \\ \frac{1.71}{1.71+1.71+0.34} \\ \frac{0.34}{1.71+1.71+0.34} \end{bmatrix} = [0.45 \ 0.45 \ 0.10]$$

(4) Test the consistency of the judgement matrix and calculate the maximum latent root  $\lambda_{\max}$ .

$$\lambda_{\max} = \sum_{i=1}^n \frac{(AW)_i}{nW_i} = 3$$

(5) Calculate the consistency index CI.

$$\begin{aligned} CI &= (\lambda_{\max} - n) / (n-1) \\ &= (3-3) / (3-1) = 0 \end{aligned}$$

(6) The random consistency rate CR.

$$CR = CI / RI = 0 / 0.58 = 0$$

Due to  $CR = 0 < 0.1$ , the judgement matrix has satisfying consistency. Therefore, the weights of management structure, decision mechanism, and risk management ability versus that of decision capability are respectively 0.45, 0.45, and 0.10.

For other indexes' weights, the calculation methods and the consistency tests of judgement matrixes are similar. Here we do not provide with specific calculation processes. The specific indexes' judgement matrixes and weights are displayed as follow.

(1) Relevant weights of sub-indexes of decision capability

$$U_1 = [U_{11} \ U_{12} \ U_{13}] = [0.45 \ 0.45 \ 0.10]$$

(2) Relevant weights of sub-indexes of execution capability

$$U_2 = [U_{21} \ U_{22} \ U_{23} \ U_{24} \ U_{25} \ U_{26}] = [0.13 \ 0.19 \ 0.09 \ 0.06 \ 0.25]$$

(3) Relevant weights of sub-indexes of culture capability

$$U_3 = [U_{31} \ U_{32} \ U_{33} \ U_{34}] = [0.11 \ 0.32 \ 0.26 \ 0.31]$$

(4) Relevant weights of sub-indexes of innovation capability

$$U_4 = [U_{41} \ U_{42} \ U_{43} \ U_{44}] = [0.23 \ 0.14 \ 0.36 \ 0.27]$$

(5) Relevant weights of sub-indexes of operation capability

$$U_5 = [U_{51} \ U_{52} \ U_{53} \ U_{54} \ U_{55} \ U_{56}] = [0.13 \ 0.27 \ 0.13 \ 0.28 \ 0.10 \ 0.09]$$

(6) Relevant weights of levels of principle to strategic capability

$$U = [U_1 \ U_2 \ U_3 \ U_4 \ U_5] = [0.35 \ 0.19 \ 0.11 \ 0.23 \ 0.12]$$

## 5. The empirical analysis

We take a power supply enterprise in western China as an example and evaluate its strategic capability.

In order to make the score of every index reflect the enterprise's condition scientifically, rationally, and actually, we adopt different evaluation method for different evaluation index. This paper mainly uses three methods as follow in scoring the evaluation indexes.

(1) Expert evaluation method. For indexes that can not be graded quantitatively, a common way is to adopt the expert subjective evaluation method in making an integrated evaluation. In order to guarantee the expert evaluation results' objectiveness and consistency, we can systematically collect indexes' historical information and supply them for experts, and adopt the Delphi method to make evaluation, till finally get the consistent evaluation results.

(2) Management diagnostic questionnaire. In order to further understand the power supply enterprise's business management situation, we make up the management diagnostic questionnaire, by questions in which we can analyze and establish the sub-indexes.

(3) Grade the financial indexes. For indexes that can be evaluated objectively and quantitatively, such as the enterprise's business performance, we can collect data of yearly business plan and performance from the electric power bureau and

make evaluation by comparison. Here we design the power supply enterprise's business performance evaluation method by taking reference from the State-owned Assets Supervision and Administration Commission of the State Council in evaluating the president's business performance in state-owned enterprise.

By these method discussed above, we can get the scores of the power supply enterprise's evaluation sub-indexes. Then, we can get the score of the power supply enterprise's strategic capability. The specific scores are displayed in table 3.

Based on the evaluation and analysis, we find that this power supply enterprise possesses a relatively stronger integrated strategic capability. The enterprise's decision capability, culture capability, and operation capability are scored relatively high. The high decision capability can guarantee the enterprise's development direction. The better operation capability serves as the base of enterprise's future development. However, the enterprise's execution capability and innovation capability are scored relatively low. The poor execution capability leads to the enterprise's low work efficiency. The enterprise strategy and the managers' orders can not be carried out timely and effectively. The lack of innovation capability may fail the enterprise in sustainable development.

## 6. Conclusion

The strategic capability should not only guarantee the enterprise's survival and development in a short period, but also include the enterprise's optimal resource allocation capability in the long run. The strategic capability supports the enterprise to realize the continuous development, providing the enterprise with motives of sustainable development. Once an enterprise has the strategic capability, does the enterprise possess long-term competitive advantages, driving the enterprise develop fast. Only when an enterprise possesses better strategic capability, can it realize the sustainable development.

By decomposing and evaluating the enterprise's strategic capability, the decision-makers can evaluate the enterprise's strategic capability quantitatively, predict and master the enterprise's development more rationally, adjust and perfect the enterprise's development strategy, reducing the uncertain factors in the enterprise's development process, and finally making the enterprise enhance its competence and create better business performance in a steady development.

## References

- Guo, Yajun. (2007). *Comprehensive Evaluation Theory, Method, and Application*. Beijing: Science Press.
- Xu, Xiaoping. & Liu, Wei. (2006). The systematic analysis and evaluation of corporate strategic capability. *Journal of Harbin University of Commerce: Social Science Edition*. No.6.
- Yang, Bin. & Zhao, Changtie. (2007). Research on multi-dimension construction of strategy capability. *Science of Science and Management of S.&T.* No.7. p152-156.
- Zhang, Wensong. (2005). *Corporate Strategic Capability*. Beijing: Science Press.

Table 1. The index system for the power supply enterprise’s strategic evaluation.

Level of objective	Level of principle	Specific sub-index
Enterprise’s strategic capability U	Decision capability U <sub>1</sub>	Management structure U <sub>11</sub>
		Decision mechanism U <sub>12</sub>
		Risk management ability U <sub>13</sub>
	Execution capability U <sub>2</sub>	Approval degree of strategy U <sub>21</sub>
		Organizational frame U <sub>22</sub>
		System U <sub>23</sub>
		Operational process U <sub>24</sub>
		Plan-target management U <sub>25</sub>
		Execution culture U <sub>26</sub>
	Culture capability U <sub>3</sub>	Enterprise image U <sub>31</sub>
		Internal harmony U <sub>32</sub>
		Construction of corporate culture U <sub>33</sub>
		Enterprise cohesion U <sub>34</sub>
	Innovation capability U <sub>4</sub>	Personnel structure U <sub>41</sub>
		Enterprise’s innovation environment U <sub>42</sub>
		Learning ability U <sub>43</sub>
		Input and output of innovation U <sub>44</sub>
	Operation capability U <sub>5</sub>	Operation resource U <sub>51</sub>
		Strength of power grid U <sub>52</sub>
		Customer service U <sub>53</sub>
		Safety management U <sub>54</sub>
		Operation performance U <sub>55</sub>
		Organization response degree U <sub>56</sub>

Table 2. The judgement matrix of decision capability’s sub-indexes.

U <sub>1</sub>	U <sub>11</sub>	U <sub>12</sub>	U <sub>13</sub>
U <sub>11</sub>	1	1	5
U <sub>12</sub>	1	1	5
U <sub>13</sub>	1/5	1/5	1

Table 3. The strategic evaluation scores of the power supply enterprise in western China.

	Evaluation index	Score	Strategic capability score
Strategic capability	Decision capability	80.8	80.6
	Execution capability	77.1	
	Culture capability	82.6	
	Innovation capability	77.2	
	Operation capability	86.9	

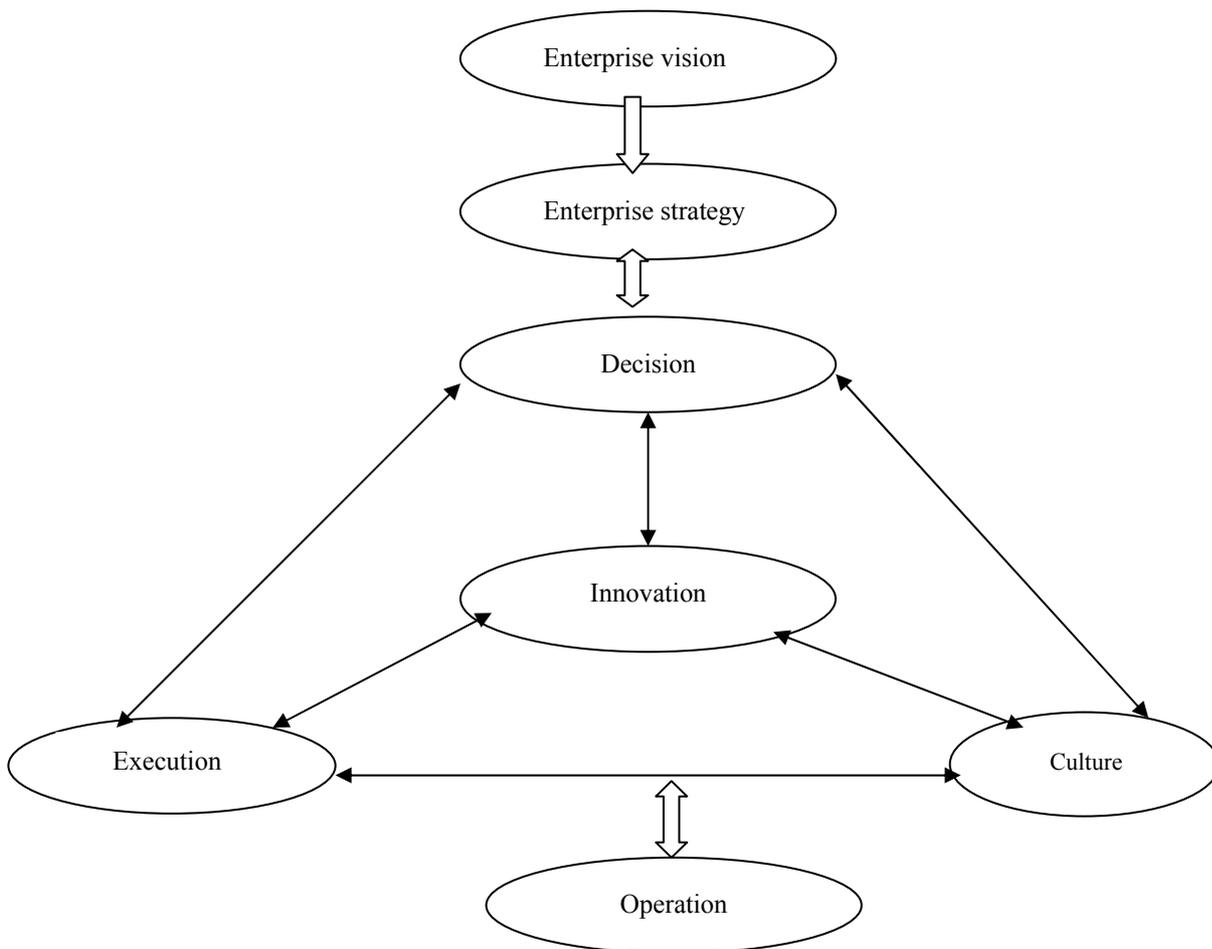


Figure 1. The Power Supply Enterprise’s Strategic Capability Structure Model.



## Conservatism and Accruals: Are They Interactive?

### Evidence from the Greek Capital Market

Panagiotis E. Dimitropoulos

University of Peloponnese

Department of Sport Management

3-5 Lysandrou Str

P.C.23100, Sparta, Greece

Tel: 30-6936898306 E-mail: dimitrop@uop.gr

#### Abstract

A large body of accounting research in the past has documented the existence of conservatism and timeliness of income recognition as distinct factors which affect the returns-earnings relation. However, earnings are not the only measure of financial performance that is affected by conservatism. The aim of this paper is to examine the impact of conservatism on accrual measures and drivers, in the Greek capital market between 1998 and 2004. Results indicated that conservatism has a significant impact on accrual measures (Total and non-discretionary accruals) but not on accrual drivers (earnings, sales, change in sales and property, plant and equipment). These findings suggest that common accrual models are misspecified, thus future research must consider the impact of conservatism in accrual models.

**Keywords:** Conservative accounting, Timeliness of income recognition, Accrual models, Market-based accounting research, Greece

#### 1. Introduction

In this paper I examine the effect of timeliness and conservatism on accruals measures and earnings components, used as explanatory variables in accrual models, in the Greek accounting setting. Greece is a code law country and adopts the historic cost accounting procedure for recording, valuating and measuring firms' assets, liabilities, income and expenses. This practically means that the Greek accounting system can be characterized as a conservative-tax driven accounting system, since financial entities report only realised income but on the other hand they anticipate all losses (Hevas and Siougla, 2006).

Under globalized and highly volatile financial markets, as they are today, financial information could be proved useful for minimizing the uncertainty concerning future earnings. On a case like this, managers always hold valuable information about a firm's value and functions. In the case when the manager's return is related with the level of reported earnings, then they will logically conceal any relative information from the financial statements that would have a negative impact on their compensation. (Basu, 1997)

This situation refers to the case of conservatism in income recognition, where a financial announcement considered being negative, tends to be realized faster than an announcement that has a positive impact on investor's equity. Conservatism has inclined accounting theory and practice for centuries. As Basu (1997) argues, "historical records from early 15<sup>th</sup> century trading partnerships show that accounting in the medieval Europe was conservative". Conservatism relates to the situation in which if accounting was unregulated, then counterparties would agree that the accounting numbers used in financial statements, indicating their transactions, would be determined conservatively.

The sources of conservatism may be detected on the fact that investors as well as regulatory authorities may be more concerned in receiving bad news than good news in order to detect problem areas and to take rational investment decisions. Also accountants find bad information from business managers more plausible than good news. Moreover conservatism may arise from different legal and accounting environments among countries. (Ball et al, 2000)

However, someone must consider the case that conservatism has a significant impact on accruals and the way that accruals are measured. Ball and Shivakumar (2006) argue that cash flows are realised only when they occur thus are not contemporaneously affected by conservatism. Accrual models have received great attention by researchers worldwide. Accruals are defined as the difference between accounting earnings and cash flows (or cash flows from operations). Large positive accruals designate that earnings figures are higher compared to cash flows generated by the firm. This difference is caused by managers' decisions as to when and how much revenues and costs must be disclosed. Many studies have argued that firms with high accruals (thus earnings are higher than cash flows) perform worse, by means of stock returns, compared to firms with low accruals (Sloan, 1996; Houge and Loughran, 2000; Hribar, 2000; Xie, 2001).

The above finding could be attributed in two reasons. The first is the autonomy that generally accepted accounting principles (GAAP) provide to managers regarding the level and the timing of the disclosure of revenues and expenses. The second is the slow reaction of the market to value relevant events. A large body of studies (Abarbanell and Bushee, 1998; Piotroski, 2000; Thomas and Zhang, 2001) have documented that the market responds with a delay or under reacts to some value relevant information that occur in the market. Alternatively, this timeliness could be observed in information contained in accruals as well.

The aforementioned fact has been widely documented by many researchers such as Dechow et.al (1995), Guay et.al (1996), Young (1999), Thomas and Zang (2000) and Moreira and Pope (2006). They all suggest that accruals models like Jones (1991) are misspecified, imprecise in estimating discretionary accruals and they perform poorly in terms of forecasting accuracy and explanatory power. Under this framework, our aim is to seek empirical evidence regarding the impact of conservatism on accrual measures and drivers within the Greek accounting setting. Despite the fact that the aforementioned issue has received great attention from researchers, the majority of studies on this field have focused on well developed capital markets creating a gap on the literature of less developed and organized stock markets. The Greek accounting setting can be characterized by moderate tax and financial accounting conformity, moderate use of accruals, low importance of the capital market and weak corporate governance. Therefore, the present study adds to the existing literature by examining the issue of accruals conservatism within the context of an emerging capital market like Greece. To our knowledge, this the first study which considers the aforementioned issues in the Greek accounting setting. Following Moreira and Pope (2006), we believe that accrual drivers will be unaffected by conservatism, since they are originated on a realization basis, but on the contrary accrual measures are expected to be influenced by conservatism.

Our results partially verify the results by Moreira and Pope (2006). Accrual measures (Total and non-discretionary accruals) are affected by conservatism but not such effect can be verified for the discretionary accruals. Additionally, accrual drivers are all significantly and negatively affected by conservatism, something which confirms the accounting realization principle.

The rest of the paper is organized as follows. The next section presents a brief discussion on the Greek accounting setting, followed by a review of relative literature. Section 4 describes the research framework while section 5 presents the data selection procedure alongside with some descriptive statistics of the sample variables. Section 6 illustrates the empirical results and finally the last section is dedicated to concluding remarks and fruitful ways for future research.

## **2. The Greek accounting setting**

An extensive amount of research on the past has examined the earnings-return relation within countries of different accounting regimes. Greece has many significant differences from other developed markets since it is classified within the emerging Asian and Near East accounting regime (alongside with India, Indonesia, Korea, Malaysia, Philippines, Thailand and Turkey). The Greek accounting setting can be characterized by moderate tax and financial accounting conformity, moderate use of accruals, low importance of the capital market and weak corporate governance. On the contrary, countries such as US and the UK (Classified within the North American and Anglo-Saxon accounting regimes) can be regarded as highly developed markets with low tax and financial accounting conformity, very high use of accruals, high importance of the capital market and very strong corporate governance. (Francis et.al, 2000; Defond and Hung, 2004; Myring, 2006)

Being more specific, Greece is a code law country and its accounting system (originating from the French accounting system) adopts the historic accounting principle for the valuation of assets, liabilities, revenues and expenses. The main consequence of this principle is that the financial statements and the balance sheet especially, do not present the fair value of the firm's assets. This creates problems in the depreciation and amortization of assets, distribution of dividends and in the estimation of deferred taxation and in many other accounting issues. There is a long debate whether the historical cost accounting procedure is beneficial or detrimental for the informational relevance of the financial statements, since those who are in favour of that method argue that the market value of assets is actually a synthetic estimation of their value and it will not help the accounting valuation due to the changes of the market values over time. The historical cost accounting procedure was embedded in the Greek legislation through the EU 4<sup>th</sup> directive and the only differentiation was made by the tax code 2065/92, which stated that firms are obliged to revalue their asset every four years.

The Greek accounting system can be characterized as conservative and tax oriented. This means that losses and expenses are realized immediately in the financial statements, even if they are not accrued but the relative provision has been made, while profits are incorporated into the financial statements when they occur (Meigs and Meigs, 1988).

Finally, the Greek GAAP designates the regulatory framework for timely financial reporting of the publicly listed firms. Greek firms are obliged to publish their financial statements by the 161<sup>st</sup> day after the end of the fiscal year. There is no requirement for any preliminary announcements or press release of earnings earlier from the publication dates. Ansa

and Leventis (2006) document that the 28 per cent of publicly listed firms in Greece report their financial statements within the first 60 days of the time horizon, while the 35 per cent of the firms make use of the whole time period of 161 days. Overall Greek firms need, on average, 131 days to report their financial statements after the fiscal year-end. Thus conservatism and timeliness of income recognition consist two fruitful avenues for research within the Greek accounting setting.

### 3. Literature review & testable hypothesis

The majority of the studies on accrual models are being concentrated on the detection of potential fraudulent activity and the quality of the published financial statements. Under this framework, many researchers made efforts to decompose overall accruals between the non-discretionary component, which captures the impact of business conditions, and the discretionary component which reflects managerial choices. Jones (1991) was the first who attempted to make that distinction, followed by DeFond and Jiambalvo (1994), who estimated non-discretionary accruals as a function of changes in sales and the level of property, plant and equipment.

Jones (1991) model has been extensively used in the literature, despite its disadvantages but since there is no other plausible model it is used as a benchmark for research in this field. Jones (1991) model is based on a simple OLS regression including accruals used as the dependent variable and one or more earnings components as the independent variables. (Earnings, sales, property plant and equipment etc). The main characteristic of these earnings components is that they are expected to be recognised according to the realization principle. In other words, by the time they occur there is no doubt about their amounts, thus they are expected to remain unaffected by conservatism.

Additionally, Basu (1997), Pope and Walker (1999), Ball et.al (2000) and Moreira and Pope (2006) document that the asymmetric affect of conservatism impacts earnings through accruals (short-term and long-term accruals). These findings are justified by the fact that bad news is recognized immediately after they become expected, but on the contrary good news is recognized when they become realized. Taking into consideration the empirical findings discussed above, we expect that accrual measures will be asymmetrically affected by conservatism, while the opposite will stand for accrual drivers. This expectation is formed in the following hypothesis:

*H<sub>1</sub>: The contemporaneous timeliness of good and bad news is expected to affect accrual measures but not accrual drivers.*

### 4. Research design & variables selection

In order to examine the impact of conservatism over accruals and earnings components we used an adjustment of the model used in Moreira and Pope (2006).

$$X_t/P_{t-4} = b_1 + b_2 * D_{it} + b_3 * R_{it} + b_4 * R_{it} * D_{it} + e_{it} \quad (1)$$

where X is one at a time each of earnings components and accrual measures, P is the fiscal year end closing price,  $R = (P_t - P_{t-1}) / P_{t-4}$  and D is a dummy variable taking the value of one (1) if  $R_{it}$  is negative and zero (0) otherwise and  $R_{it} * D_{it}$  is the product of  $R_{it}$  and  $D_{it}$ . Coefficient  $b_3$  is the indicator of earnings response to good news. As argued in Pope and Walker (1999) and Moreira and Pope (2006) this coefficient is expected to be positive and its size is determined by the speed at which good news is recognized in earnings. The sum of coefficients  $b_3$  and  $b_4$  is the indicator of earnings response to bad news. If conservatism impacts asymmetrically on earnings, coefficient  $b_4$  is expected to be positive.

The variable X as we mentioned previously is one at a time the accrual measures and the earnings components used as drivers in the accrual models. The main accruals measures used in our research are the total accruals (change in current assets minus change in current liabilities minus depreciation), discretionary and non-discretionary accruals. Since Moreira and Pope (2006) and Ball and Shivakumar (2006) argue that discretionary and non-discretionary accruals are measured with error, we include these measures into model one (1) in order to test directly the impact of conservatism in those measures.

For this reason we used the cross-sectional variation of the Jones (1991) model as it was modified by DeFond and Jiambalvo (1994). This model estimates non-discretionary accruals as a function of changes in sales and the level of property, plant and equipment by estimating the following OLS equation:

$$ACC_{it} / TA_{t-1} = \alpha(1 / TA_{t-1}) + \beta(\Delta Sales_{it} / TA_{t-1}) + \gamma(PPE_{it} / TA_{t-1}) + e_{it} \quad (2)$$

Where:

$ACC_{it}$  is total accruals defined as above

$\Delta Sales_{it}$  is the change in net sales ( $Sales_{it} - Sales_{it-1}$ )

$PPE_{it}$  is the level of property plant and equipment for each year

Non-discretionary accruals (NDAC) are defined as the fitted values from equation two (2):

$$NDAC_{it} / TA_{it-1} = \hat{\alpha}(1 / TA_{it-1}) + \hat{\beta}(\Delta SALES_{it} / TA_{it-1}) + \hat{\gamma}(PPE_{it} / TA_{it-1}) \quad (2a)$$

and the discretionary accruals are defined as the residuals from estimating equation one (1):

$$DAC_{it} = ACC_{it} / TA_{it-1} - \hat{\alpha}(1/TA_{it-1}) + \hat{\beta}(\Delta SALES_{it} / TA_{it-1}) + \hat{\gamma}(PPE_{it} / TA_{it-1}) \quad (2\beta)$$

The cross-sectional model has been used for a number of important reasons. First of all, the cross-sectional model generates and uses more observations, thus increasing the validity of the parameters estimations. Also controls for the effect of non-stationarity, something that the time series model cannot and finally the cross-sectional model increases the power of tests that examine time-series behaviour in discretionary accruals (see also Subramanyan, 1996).

Moreover the earnings components which we selected as the accrual drivers are sales, the change in sales, end of year's property plant and equipment and earnings excluding taxes and discontinued operations. All variables are deflated by the fourth lag market value as in Pope and Walker (1999).

## 5. Data & descriptive statistics

Our sample consists of 101 companies, all listed in the Athens Stock Exchange, with full annual data of reported earnings and stock prices during the period 1998-2004. Data were collected from the Athens Stock Exchange database. The initial sample contained 112 companies with full data for the period under investigation but we restricted it to companies with December fiscal year-end limiting the final number to 101. The following table 1 contains an analytical presentation of the data selection procedure.

INSERT TABLE 1 HERE

We use per share values of earnings and returns in order to reduce heteroscedasticity on the error terms (see also Barth et.al, 1992; Kothari and Zimmerman, 1995). The earnings variable is annual earnings excluding taxes, extraordinary items and discontinued operations, scaled by the market value four periods ago (As in Pope and Walker, 1999). Return variable is measured over the fiscal year. Annual stock returns, exclusive of dividends, are used and the earnings and price data are adjusted for stock splits, stock dividends and stock issues. No further trimming of the sample was conducted since we did not want to lose observations and affect the final results.

We have used annual financial data since quarterly data has the disadvantage being available for a shorter time period and make the analysis more complicated introducing a relative measurement error on the estimates (Dechow et.al, 1998). The following table 2 includes some descriptive statistics of the accrual measures and drivers variables used for the evaluation of model one (1). As we can see the mean of all variables is higher than the median suggesting that the distribution of the data is positively skewed. Additionally, the standard deviation in all variables is higher compared to the mean. Also the 75 per cent of the firms have a return up to 45 cents and earnings yield up to 17 cents. However, we cannot say the same for firms in the 1<sup>st</sup> quartile where the earnings yield is close to zero and the return is negative. Finally, the median of total accruals is zero and negative for the discretionary and non-discretionary components but on the contrary accrual drivers have a median which is higher than earnings.

INSERT TABLE 2 HERE

Table 3 displays the correlations among the main variables. Pearson correlations are below the diagonal and Spearman correlations above the diagonal. As we can see the earnings variable is significantly and positively associated with property, plant and equipment and sales since these variables are strongly related in accounting terms. Accruals measures are highly correlated and in some cases it reaches up to 76 per cent. Finally, returns are highly and significantly correlated with all accrual measures (the highest is with non-discretionary accruals 54.4 per cent) but the opposite stands for earnings and change in sales (Returns and change in sales are negatively associated). It seems that accrual measures do have incremental information that can affect returns or put it another way stock market prices accruals more intensively compared to earnings and its components.

INSERT TABLE 3 HERE

## 6. Empirical results

In this section we will present the empirical findings from estimating model one (1), which is an adjusted version of the Pope and Walker (1999) model. Our aim is to examine the impact of good and bad news on earnings, accrual measures and drivers. The relative results are presented on table 4. We report pooled regression results for the period 1998-2004, but our focus is on the coefficients of good and bad news. The column "GN=BN" indicates the results of a test for the difference of coefficients of good and bad news.

INSERT TABLE 4 HERE

As we can see the coefficient of good news ( $b_3$ ) is positive and significant in all variables except the change in sales. Total accruals show the highest timelines compared to the other variables (2.46), followed by property plant and equipment and sales. However, earnings seem to be less timely compared to its components and judging from the fact that the coefficient of bad news is negative and is statistically different from  $b_3$  in a conventional level we can argue that

the earnings variable is unaffected by conservatism. This finding is inconsistent to Pope and Walker (1999), Basu (1997) and Moreira and Pope (2006) and needs to be addressed by future research in terms of different methods for the estimation of the earnings variable or the relative informativeness of earnings components (below the line items) in the issue of conservatism.

Regarding our accrual measures, total accruals and non-discretionary accruals are positively and significantly affected by conservatism. Especially, total accruals yield the highest coefficient of bad news among the three measures (1.17) followed by non-discretionary accruals (0.002). However, discretionary accruals are also positively affected by conservatism but the test for the difference in the coefficients of good and bad news did not provide significant evidence. This means that timeliness and conservatism have an equal impact on discretionary accruals. These findings partially verify our main hypothesis that conservatism affects accrual measures and most severely total accruals.

Finally, regarding our accrual drivers the coefficient of bad news is negative and significant in all earnings components. As in the case of earnings, accrual drivers remain unaffected by conservatism. This evidence support the intuition that accrual drivers are originated on a realization basis, thus are not expected to be asymmetrically affected by conservatism. Overall we can argue that our results are consistent to Moreira and Pope (2006) and our insight that the asymmetric impact of conservatism in the Greek accounting setting holds only for accrual measures and not for accrual drivers used as independent variables in accrual models. This evidence suggests that accrual models are misspecified and their estimates may contain a measurement error if conservatism is not taken under consideration. If someone does not make specific control for conservatism on the right hand side of equation two (2), and since accrual drivers are expected to be unaffected by conservatism, the intercept and the error term tend to pick up such effects, thus accrual measures are expected to contain a measurement error. (See also Moreira and Pope, 2006).

## 7. Concluding remarks & future research

In the present study we perform an empirical investigation on the relative timeliness of accrual measures and drivers used as independent variables in accrual models, regarding the effect of conservatism. Following Moreira and Pope (2006), we hypothesized that accrual drivers (sales, change in sales and property plant and equipment) are unaffected by conservatism since they are generated according to the realization basis. On the contrary, accrual measures (total, discretionary and non-discretionary accruals) are expected to be asymmetrically affected by conservatism because bad news are recognized immediately after they become expected, but on the contrary good news are recognized when they become realized. Thus we expect that accrual measures will be asymmetrically affected by conservatism.

In order to test empirically the aforementioned intuition we selected a sample of 101 companies all listed in the Athens Stock Exchange for the period 1998-2004. We applied Basu (1997) linear model under the adjustments made by Pope and Walker (1999) and estimate it including one at a time each accrual measure and driver.

Our results are partially consistent to Moreira and Pope (2006). Being more specific, the impact of good news on accrual measures and drivers is positive and significant (except change in sales). However, earnings seem to be less timely compared to its components and since the coefficient of bad news is negative and is statistically different from the coefficient of good news in a conventional level we can argue that the earnings variable is unaffected by conservatism.

Moreover, total accruals and non-discretionary accruals are positively and significantly affected by conservatism. However, discretionary accruals are also positively affected by conservatism but not significantly. This means that timeliness and conservatism have an equal impact on discretionary accruals. Finally, regarding our accrual drivers the coefficient of bad news is negative and significant in all earnings components. As in the case of earnings, accrual drivers remain unaffected by conservatism. Overall we can argue that our results are consistent to Moreira and Pope (2006) and our insight that the asymmetric impact of conservatism in the Greek accounting setting holds only for accrual measures and not for accrual drivers used as independent variables in accrual models.

Consequently, future research needs to take in to consideration the impact of conservatism into accrual measures in order to construct more effective and accurate accrual models, which in turn will be proved useful in the efforts for the creation of more efficient earnings quality measures.

## References

- Abarbanell J. and B. Bushee (1998). Abnormal returns to a fundamental analysis strategy. *The Accounting Review* 73, 19-45.
- Ansah-Owusu S. and Leventis S. (2006). Timeliness of corporate annual financial reporting in Greece. *European Accounting Review*, Vol.15, No.2, pp.273-287.
- Ball R., Kothari S.P. and Robin A. (2000). The effect of international institutional factors on properties of accounting earnings. *Journal of Accounting and Economics*, 29, pp.1-51.

- Ball R. and L. Shivakumar (2005). Earnings quality in U. K. private firms: comparative loss recognition timeliness. *Journal of Accounting and Economics*, vol. 39, pp. 83-128.
- Ball R. and Shivakumar L. (2006). The role of accruals in asymmetrically timely gain and loss recognition. *Journal of Accounting Research*, 44, 2, pp.207-242.
- Barth, M., W. H. Beaver and W. R. Landsman (1992). The market valuation implications of net periodic pension cost components. *Journal of Accounting and Economics* 15,2, pp.62
- Basu S. (1997). The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics*, 24, pp.3-37.
- Dechow, P., R. Sloan, and A. Sweeney (1995). Detecting earnings management. *The Accounting Review*, v. 70, n. 2, April, pp. 193-225.
- Dechow P, Kothari S.P. and R. Watts (1998). The relation between earnings per share and cash flows. *Journal of Accounting and Economics* 25, 133-168.
- DeFond, M. and J. Jimbalvo (1994). Debt covenant violation and manipulation of accruals: Accounting choice in troubled companies. *Journal of Accounting and Economics* 17, 145 176.
- Defond, M., & Hung, M. (2004). Investor protection and corporate governance: Evidence from worldwide CEO turnover. *Journal of Accounting Research*, Vol 42(2), 269–312.
- Francis J., R. LaFond, P. Olsson and K. Schipper (2005). The market pricing of accruals quality. *Journal of Accounting and Economics*, Vol 39, pp.295-327.
- Guay, W., S. Kothari, and R. Watts (1996). A market-based evaluation of discretionary accrual models. *Journal of Accounting Research*, v. 34, Supplement, pp. 83-105.
- Hevas D. and Siougle G. (2006). The differential information content of loss components under a conservative accounting regime. Proceedings, 1<sup>st</sup> International Conference in Accounting and Finance, University of Macedonia, 31<sup>st</sup> August-1<sup>st</sup> September 2006, Greece.
- Houge T. and T. Loughran (2000). Cash flow is king: Cognitive errors by Investors. *Journal of Psychology and Financial Markets*, Vol 1, No 3-4, pp.161-175.
- Hribar P. (2000). The market pricing of components of accruals. Working paper, Cornell University.
- Jones J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research* 29, 193–228.
- Kothari, S. P., Zimmerman, J. L. (1995). Price and return models. *Journal of Accounting and Economics*, 20, pp. 155-192.
- Meigs W.B. & Meigs R.F. (1988). *Accounting-Vol.1*. Papazisis Publications, Athens
- Moreira J. and Pope P. (2006). Unequal impact of conservatism on accrual measures and drivers: Implications for the specification of accrual models. Proceedings, 1<sup>st</sup> International Conference in Accounting and Finance, University of Macedonia, 31<sup>st</sup> August-1<sup>st</sup> September 2006, Greece.
- Myring M. (2006). The relationship between returns and unexpected earnings: A global analysis by accounting regimes. *Journal of International Accounting, Auditing & Taxation*, Vol 15, pp.92-108.
- Piotroski J. D. (2000). Value investing: The use of historical financial statement information to separate winners from losers. Working paper, University of Chicago.
- Pope F. P. and Walker M. (1999). International differences in the timeliness, conservatism and classification of earnings. *Journal of Accounting Research*, Vol. 37, Supplement 1999.
- Sloan, R. (1996). Do stock prices fully reflect information in accruals and cash flows about future earnings?. *The Accounting Review* 71, 289-315.
- Subramanyam, K.R. (1996). The pricing of discretionary accruals. *Journal of Accounting and Economics* 22, 249-281.
- Thomas, J. and X. Zhang (2000). Identifying unexpected accruals: a comparison of current approaches. *Journal Accounting and Public Policy*, v.19, pp. 347-376.
- Thomas J. K. and H. Zhang (2001). Inventory changes and future returns. Working paper, Columbia University
- Xie H. (2001). The mispricing of abnormal accruals. *The Accounting Review* 76, 357–373.
- Young S. (1999). Systematic Measurement Error in the Estimation of Discretionary Accruals: An Evaluation of Alternative Modelling Procedures. *Journal of Business Finance & Accounting*, v. 26, n.7-8, Sept./Oct., pp. 833-862.

Table 1. Sample selection procedure

Firms listed in the Athens Stock Exchange (ASE)	247
Less: Financial Services Firms	(43)
Remaining non-financial firms	204
Less: Firms with incomplete stock price data	(96)
Non-financial firms with full stock price data	108
Less: Non-December fiscal year end firms	(7)
Firms included in the final sample	101

Table 2. Descriptive statistics for the sample variables over the period 1998-2004.

Variables	N	Mean	St. Deviation	Quartile 1	Median	Quartile 3
$R_{it}$	707	-0.058	12.08	-0.814	-0.055	0.451
EARN/P <sub>t-4</sub>	707	0.569	3.56	0.00	0.019	0.176
TACC/P <sub>t-4</sub>	707	0.47	105.17	-0.13	0.00	0.02
DACC/P <sub>t-4</sub>	707	0.103	2.67	-0.053	-0.006	0.010
NDACC/P <sub>t-4</sub>	707	0.032	0.337	-0.024	-0.005	0.0036
PPE/P <sub>t-4</sub>	707	3.10	15.26	0.019	0.208	1.29
SALES/P <sub>t-4</sub>	707	5.58	21.58	0.043	0.50	2.87
$\Delta$ SALES/P <sub>t-4</sub>	707	0.19	17.7	-0.002	0.009	0.24

The sample consists of 101 firms listed on Athens Stock Exchange, which have available data for the whole period of research. Only firms with December fiscal year-end are included in the sample. Earnings variable is annual earnings excluding taxes and earnings from discontinued operations. Return is the market return covering the year under investigation. Earnings and Returns are adjusted for stock splits and dividends. All variables are divided by the fourth lag of market value as in Pope and Walker (1999). Accruals are estimated as the change in current assets minus the change in current liabilities minus the depreciation expense. Discretionary and non-discretionary accruals are measured using the cross-sectional variation of the Jones (1991) model

Table 3. Pearson-Spearman correlations for sample variables over the period 1998-2004 (Pearson correlations below the diagonal-Spearman correlations above the diagonal).

	EARN	PPE	SALES	ASALES	R	ACC	DAC	NDAC
EARN	1	0.574** (0)	0.574** (0)	0.583** (0)	0.407* (0)	-0.013 (0.727)	-0.023 (0.548)	-0.160** (0)
PPE	0.523** (0)	1	0.888** (0)	0.393* (0)	-0.093 (0.014)	-0.171* (0)	-0.238** (0)	-0.416** (0)
SALES	0.381** (0)	0.489** (0)	1	0.504** (0)	-0.066 (0.078)	-0.146* (0)	-0.233* (0)	-0.35* (0)
ASALES	-0.142** (0)	0.095* (0.012)	0.386** (0)	1	0.089** (0.018)	-0.027 (0.469)	-0.112* (0.003)	-0.111** (0.003)
R	0.093* (0.014)	0.03 (0.422)	-0.004 (0.923)	-0.234** (0)	1	0.116** (0.002)	0.006 (0.866)	0.556** (0)
ACC	-0.356** (0)	0.046 (0.222)	0.011 (0.78)	0.015 (0.691)	0.216** (0)	1	0.555** (0)	0.162** (0)
DAC	-0.014 (0.715)	0.348** (0)	0.089* (0.018)	0.086* (0.022)	0.319** (0)	0.759** (0)	1 (0.025)	-0.084** (0.025)
NDAC	0.152** (0)	0.205** (0)	0.012 (0.759)	-0.399** (0)	0.544** (0)	0.494** (0)	0.523** (0)	1

The sample consists of 101 firms listed on Athens Stock Exchange, which have available data for the whole period of research. Only firms with December fiscal year-end are included in the sample. E $\Delta$ R is annual earnings per share, excluding taxes and discontinued operations, and R is the market return at the end of the fiscal year for each firm. Earnings and Returns are adjusted for stock splits and dividends. PPE is the property and plant equipment at the end of the fiscal year. Sales and  $\Delta$ sales are the sales revenue and the change of the sales revenue at the end of the fiscal year. ACC, DAC and NDAC are the total accruals, discretionary accruals and non-discretionary accruals respectively. Discretionary and non-discretionary accruals are measured using the Jones (1991) model. (p values in the parenthesis. \* significant at  $\alpha=5\%$ , \*\* significant at  $\alpha=1\%$ , 2-tailed test).

Table 4. Impact of good and bad news on accrual measures and drivers (Pooled regressions, period 1998-2004)

Variables	$b_1$	$b_2$	$b_3$ (GN)	$b_4$	$b_3 + b_4$ (BN)	G:N=BN	Adj.R <sup>2</sup>	D-W stat
EARN/P <sub>t-4</sub>	0.257 (1.22)	0.197 (0.70)	0.07* (4.66)	-0.09* (-4.12)	-0.02	*	2.9%	2.01
TACC/P <sub>t-4</sub>	-3.83 (-0.62)	3.06 (0.37)	2.46* (5.54)	-1.29** (-1.87)	1.17	*	4.8%	2.00
DACC/P <sub>t-4</sub>	-0.34* (-2.34)	0.33** (1.71)	0.13* (12.09)	-0.12* (-7.62)	0.01	=	17.1%	1.97
NDACC/P <sub>t-4</sub>	-0.001 (-0.12)	-0.018 (-0.9)	0.023* (21.55)	-0.021* (-12.51)	0.002	*	42.2%	2.02
PPE/P <sub>t-4</sub>	2.17* (2.42)	-0.09 (-0.08)	0.23* (3.55)	-0.46* (-4.60)	-0.23	*	2.6%	1.99
SALES/P <sub>t-4</sub>	4.86* (3.78)	-0.29 (-0.17)	0.16** (1.80)	-0.42* (-2.94)	-0.26	*	0.8%	2.02
ΔSALES/P <sub>t-4</sub>	1.81** (1.78)	-0.94 (-0.69)	-0.58* (-7.86)	0.53* (4.65)	-0.05	*	8%	1.97

T statistics are in the parenthesis (\* significant at a = 1%, \*\*significant at a =5%). Model:  $X_t/P_{t-4} = b_1 + b_2 D_{it} + b_3 R_{it} + b_4 R_{it} D_{it} + \epsilon_{it}$ .  $X_t$  is one at a time each of earnings and accruals components, scaled by the stock price four periods ago. Return variable is measured as firms market return over the fiscal year.  $D_{it}$  is a dummy variable taking the value of 1 if  $R_{it}$  is negative and zero otherwise and  $R_{it} D_{it}$  is the product of  $R_{it}$  and  $D_{it}$ . D.W is the Durbin-Watson statistic. GN is the coefficient of good news and BN ( $b_3 + b_4$ ) is the coefficient of bad news. “\*” means that the coefficients are statistically different from each other at less than 5%. “=” indicates that the coefficients are not statistically different from each other.



Thoughts on Risk Management for Financial Institution Undertaking Derivative Trade ----- A Comparative Analysis of Barings Bank Event and Societe Generale Event

Dacheng Qiu

School of Business Administration, Shenyang University, Shenyang 110044, China

E-mail: assdnylao2100@163.com

Yongli Jin

School of Business Administration, Shenyang University, Shenyang 110044, China

E-mail: jylysydx@163.com

Abstract

What causes Barings Bank event and Societe Generale event is a typical bank operational risk. It is the defects in internal management that lead to such a grave result. The Compliance and the Compliance Functioning Bank should be regarded as the guidance for internal risks management in financial institutions. What it emphasizes on is to make financial institutions pay more attentions on internal risks management and strict and effective executions for the sake of risks control. By designing more perfect management system, financial institutions can stop the emergence of operational risks. Besides, enhance the construction of compliance culture and devoting-to-work culture in financial institutions. Meanwhile, financial institutions should improve mutual cooperation and communication so that they can find out illegal affairs immediately.

Keywords: Financial risks supervision, Derivative trade, Compliance risks management

1. Introduction

On 24th, Jan. 2008, Societe Generale revealed its tremendous pre-tax loss of 4.9 billion Euro (about 51 billion RMB) caused by a trader for illegally betting on index futures. What investors concentrate on is whether it is another Barings Bank event or whether an excellent bank with a history of more than one hundred years collapses overnight. As time goes on, more details and development are displayed in various media. Although this event does not bring about a bankruptcy to Societe Generale, the tremendous loss and the similarities with Barings Bank event make people ponder over how to deal with the grave risks in financial derivative trade. In this paper, authors try to make a comparative analysis of the two events, probe into the reasons, and put forward personal ideas and suggestions for risks management in financial institutions.

2. The comparison between Barings Bank event and Societe Generale

Table with 3 columns: Comparison criteria, Barings Bank event, Societe Generale event. Rows include Time and background, Investment objects, and Company's response to the event.

event		times and inform it to the media immediately.
Realized direct loss	Till 2nd, Mar. 1995, the loss of Barings Bank reached 916 million UK pounds (about 1.4 billion dollars).	Societe Generale lost 4.9 billion Euro (about 7.1 billion dollars).
Consequence	On 5th, Mar. International Netherlands Groups N.V. took Barings Bank's all assets and liabilities, purchasing it completely by agreement.	Realize re-financing 5.5 billion Euro by seasoned equity offering.
Supervision institutions concerned	Barings Bank's internal supervision department, Singapore International Monetary Exchange, Singapore financial supervision authority, England financial supervision authority.	Societe Generale's internal supervision department
Impacts on neighbor market	Other stock markets are impacted to different degrees. Exchange rate of UK pounds drops drastically and UK pound – Mark exchange rate falls to the lowest in history.	On 21 <sup>st</sup> , Jan. European Stock drops by 7%. On the second day, US Federal Reserve cuts rate by 75 point.

### 3. By comparing and analyzing the two events, find out reasons for this kind of event.

Financial derivatives satisfy investment bank institutions' needs for interests. Undertaking financial derivatives trade can produce satisfying profits for investors but also huge risks of investments. Financial risks are caused by capital raise and application in economic operation. In other words, financial risks are possibilities of causing losses by uncertainties in financing. Traders collect a large sum of capitals by illegal ways and invest them in stock market and futures market for speculations and arbitrages with the hope of winning more profits. These operations are illegal and dangerous in nature. Once the market betrays the prediction of traders and then relevant supervision departments do not interfere with their struggle with the market, the loss will be a disaster.

From the table above, we conclude several reasons for this kind of events as follow:

(1) Both Barings Bank event and Societe Generale event are exposed to the public as stock market and futures market fluctuate abnormally so that even traders make gambling speculations, can not they hedge the loss. Traders in both events make speculations on derivatives with high correlation degrees. Therefore, once risks in market become greater, speculations based on amounts of capitals are nothing but desperate gambling. Once the market does not follows their predictions, former investments are far from repairing realized losses. And then the two traders tempt to affect the market trend by investing more in market. As these illegal operations are exposed to the public, what they get is nothing but tremendous losses and juridical punishments. In a sense, it is the rise of market risks that improves possibilities of this kind of events.

(2) Companies' responses affect final losses directly.

In Barings Bank event, as the trader Leeson asks the headquarters in London to remit 10 million UK pounds for paying supplemental deposit to the exchange, the headquarters do not check the trade done by Leeson carefully, which leads to the collapse of Barings at last. However, in Societe Generale event, as things go public, the bank reports to the supervision agency and shows attentive cooperation. At the same time, it completes the hedge of more than 50 billion Euro long position in three days and fixes the loss at 4.9 billion Euro in the poor performance of market. Without such immediate responses, as what was said by Bouton, the bank's administrative executive "the loss might be ten times larger than present", which will make Societe Generale copy the collapse of Barings Bank.

The inherent high risks of derivatives indicate that events similar to Barings Bank event and Societe Generale event can not be avoid thoroughly under present laws and regulations. After all, derivatives trade is a capital game in nature. Where there are losers, there are winners. Profits attract more investors. In the capital gamble market, most investors undertake hedge operations. Only few but necessary hedgers and speculators drive the gamble. For institution investors undertaking hedges and investments, to win or lose is common. But losses should be remained at an acceptable level. Once losses are beyond the level, institutions can make their losses fixed and quit by hedging. Combating with the market by increasing investments can do nothing but worsen the condition.

(3) Poor risks supervision increases probabilities of this kind of events and degrees of losses. After several decades of years' development, financial risks management has been equipped with a set of complete theories. Many countries have already issued laws and regulations about risks supervision. Therefore, only if the trade follows laws and regulations, can the tremendous loss be avoided. The key lies in the powerful supervision of supervision subjects over

trading activities.

Barings Bank, with 233 years history, had abundant capitals and a well-known fame. Societe Generale was named as one of most excellent banks in risks management field in 2007. Their risks management systems were widely accepted. However, it is the poor execution of risks management system that causes losses. In fact, traders can manipulate certain amount of capitals for derivatives trade. However, the two traders easily escaped from banks' internal checks by some popular tricks and appropriate a large sum of capitals for bet in capital market, in a sense, what was under the acquiescence of banks' top executives who hoped for great profits from these star traders. In front of profits, all laws and risks management regulations become meaningless, not mention the compliance management and compliance culture.

#### 4. New suggestions for risks management development in financial institutions

In Sep. 1998, the *Framework for Internal Control Systems in Banking Organizations* listed "validity and compliance" as one of important elements for banking internal control framework. On 29th, Apr. 2005, Basel Committee on Banking Supervision amended and issued the directions for *Compliance and the Compliance Functioning Bank*, which pointed out clearly: Compliance risks management is an important and independent risks management function. Compliance means banking activities must be in accord with proper laws, supervision regulations, rules, principles made by self-disciplined organizations, and norms for banking operations. Compliance risks management is a dynamic process in which financial institutions identify, monitor, evaluate, and report compliance risks, amend compliance management systems continuously, adopt corrective methods and impose proper punishments initiatively, try to avoid all illegal activities, and manage compliance risks all the time by constructing a set of effective compliance risks management mechanism.

Financial institutions face three sorts of risks: credit risk, market risk, and operational risk. Thereof, credit risk and market risk are hard to be excluded internally for financial institutions. The Barings Banks event and Societe Generale event are caused by typical banking operational risks derived from defects in internal management. The directions for *Compliance and the Compliance Functioning Bank* should be taken as a guided file for financial institutions' internal risks management, which reflects more attentions on internal risks management in financial institutions and more effective executions for the sake of risks control. In specific, we can improve internal risks control and risks management from following aspects:

(1) Put an end to these operational risks by designing more perfect management system. Financial institutions should organize the compliance departments considering the coherence of self risks management strategies and organizational structures. Put the internal audit and compliance control department right down the board of directors and appoint the CFO to the chief at the same time. Also, at the bottom level, apply the job rotation system and compulsory vocation system to some important positions, what can help to find out abnormal things in time. Financial institutions should constitute the compliance performance evaluation system, compliance accountability system, and credit report system that are the three backbone systems for compliance risks management. The implementation of these systems is completely controlled by the compliance department who reports to the board of directors periodically.

(2) Enhance the construction of compliance culture and devoting-to-work culture. Ensure legal implementation of compliance management by designing perfect management system. Only by building up compliance culture and devoting-to-work culture, can clients in financial institutions think much of risks management, accept boring compliance checks from compliance management department, and cooperate together to probe into and find out defects and risks in internal management system. So long as the corporate culture is to take honesty and integrity as the moral principles and the board of directors and the top management level serve as the example, the compliance will be most effective.

(3) Financial institutions should enhance mutual cooperation and communication in order to find out risky activities in time. On one hand, perfect the construction of information trade authorizing system, prevent against stealing accounts and codes, set up more precise risks pre-warning system, and realize information share in the financial institution in order to make more clients supervise potential risks. On the other hand, financial institutions should warn one another against doubtful large amounts of capital transfer by timely information exchange. Meanwhile, financial institutions must know their position and risk levels by communicating with the exchange.

#### References

Basel Committee on Banking Supervision. (2004).

Liang, Huikang. (2008). Thoughts on the tremendous loss of Societe Generale. *Financial News*. [www.financialnews.com.cn](http://www.financialnews.com.cn).

Zhang, Mingjin. (2008). Inspirations from countermeasures for the Societe Generale event for China's financial industry. <http://www.zgjrjw.com/>.

Zhu Zhouliang. (2008). Baidu Finance Topic --- An Amazing Loss of 4.9 Billion Euro in Societe Generale.



## Intangible Assets

### - According to German GAAP

Heng Wang

School of International Economics and Trade, Shandong University of Finance

No. 40 Shungeng Road, Jinan 250014, China

E-mail: whhelen@hotmail.com

#### Abstract

With the growth of global markets, intangible assets have become more and more important for both investors and managers in recent years. Although the economic importance of intangible assets has long been recognised, there has been extensive debate as to the definition of intangible assets, how to measure intangible assets, and the extent to which enterprises should be required to report these assets. Intangible Assets are likely to become increasingly important with the continuing development of high-technology industries and global service markets. The meaningful and comparable accounting for intangible assets is likely to remain one of the key international challenges facing the accounting profession during the next decade and beyond.

**Keywords:** Intangible Assets, Accounting

#### 1. Introduction

Intangible assets have grown in importance for both investors and managers in recent years. With the growth of global markets, the service sector, and the level of mergers and acquisitions, such intangible assets as brands, trademarks, patents and goodwill have become increasingly significant. Companies today create value to a large degree through business processes and activities that are based on knowledge assets, on productive relationships with customers and other business partners, on their public reputation and on the recognition of their brands and products in the global market place, and in particular on their innovative power and on new technologies. It is common for the most valuable resources of a company, for example, its market image or reputation, a technological advantage to be protected by a patent.

Although the economic importance of intangible assets has long been recognised, there has been extensive debate as to the definition of intangible assets, how to measure intangible assets, and the extent to which enterprises should be required to report these assets due to the special characteristics of intangible assets, namely the high levels of investment risk and uncertainty. The growing gap between the market value of a company and between what it reports in its financial statements demonstrates that the real value drivers are no longer captured through traditional management and accounting instruments such as the balance sheet and the income statement. Managers can no longer run a company successfully, and investors cannot make judgments about a possible investment, based on this information alone.

#### 2. Definition and Classification of Intangible Assets

The accounting for intangible assets must be considered in the context of the objectives of financial statements as a whole; certainly one such objective is to provide users of financial statements with useful and reliable information to facilitate their decision-making processes. To achieve this objective, the information must be relevant, understandable, and reliable. (D.R, Carmichael, 1996, P. 365)

##### *2.1 Purpose of Accounting in Germany*

In the past German industry was dominated by the “Mittelstand” – private companies (many of which are effectively family businesses), whose capital has traditionally been provided by the banking sector. Consequently, the major developments in German accounting have been driven by the needs of the creditors (the so called “Gläubigerschutzprinzip”) rather than those of the shareholders. Although it is possible to argue that profitability is most important to the general user of US financial statements, financial security (balance sheet) has traditionally been more important to the German user. From the beginning, German accounting was regarded as a matter of law. The predominant purpose of accounting was to show the wealth of an entity, primarily to enable creditors to evaluate their risks.

Up to date, as a result of increased cross-border capital flows and the orientation of many enterprises towards the requirements of international capital markets, consolidated financial statements are gradually becoming the focus of public interest. Aiming at making the capital markets more competitive, the German legislation supports this development by allowing that, listed companies may alternatively fully apply IAS or US GAAP in place of German rules in their consolidated financial statements, so long as these comply with EU Directives.

### 2.2 Accounting Standard Setting in Germany

The HGB is the American version of the GAAP (Generally Accepted Accounting Principles) in Germany. It has been regulating the accounting system since 1897. HGB was amended in 1985 in order to follow the European Harmonization process in financial accounting. It not often amended because, unlike the US, Germany is under code law. Because code law is not based on interpretation, accounting standards are very detailed. However, German accounting leans toward the professional end of the scale rather than the statutory. (Clare Roberts, Pauline Weetman and Paul Gordan, 2002, P. 310)

It is important to distinguish between the "Handelsgesetzbuch" (HGB—the German Commercial Code), and the "Grundsätze ordnungsmäßiger Buchführung" (GoB—German Principles of Proper Accounting). It is rather misleading to refer to the GoB as "German GAAP" certainly in formal contexts such as financial statements, because although they are the nearest thing Germany has to GAAP, they are neither defined as such, nor do they fulfil the same purpose. Accountants, however, frequently refer to the GoB as "German GAAP."

Financial statements of all business entities in Germany are required to be drawn up in accordance with GAAP (GoB or HGB). Traditionally, German accounting practice is a result of detailed codification. The main accounting rules are governed by the Commercial Code (HGB). Special regulations applicable to specific legal forms are included in the Stock Corporation Law dealing with public companies and the law on Limited Liability Companies. All other large entities must comply with the regulations under the Publicity Law.

In 1998, the German Accounting Standards Committee (GASC, "Deutsches Rechnungslegungsstandards Committee" or DRSC) was set up by the government. This body was a non-governmental organization and it was given the following tasks:

development of accounting standards for listed companies' consolidated financial statements

advising the German Ministry of Justice on changes in accounting standards

liaison with international standard setters and representation at international accounting committees.

Since then, they have formed 17 standards. On November 14, 2001 GASC has implemented a draft on Intangible Assets: "Entwurf, Deutscher Rechnungslegungs Standard Nr. 14". (DRSC) But it is not clear, whether it is already accepted or not, due to the debate.

### 2.3 Definition of Intangible Assets

Effectively, in Germany, intangible assets, like tangible assets, are not legally defined. The general definition of an asset which has developed in German accounting tradition as "principle of proper accounting" (Grundsätze ordnungsmäßiger Buchführung, GoB) does apply to tangibles as well as intangibles. In Germany, the definition of intangible assets is "fixed assets other than tangible or financial", so called "conceptual approaches by opposition". (Hervé Stolowy & Anne Jeny, 1999, P. 6) Thus as intangible assets are regarded all items which apply to the general asset definition and which are fixed but not tangible (so without physical substance) or financial. (Haller, 1998, P. 564)

In comparison, we may quote the IASC's definition: an intangible asset is "an identifiable non-monetary asset without physical substance held for use in the production or supply of goods or services, for rental to others, or for administrative purposes. An asset is a resource controlled by an enterprise as a result of past events; and from which future economic benefits are expected to flow to the enterprise". (IAS 38 "Intangible Assets") The major formal difference to the IASC definition is that the German definition does not explicitly stress the characteristic of a "future economic benefit". It speaks about an "economic value" which an item incorporates, which mostly but not necessarily implicitly incorporates the idea of a future economic benefit. The predominant two components of the German asset definition are, quite comparable to the IASC approach, that an asset must be identifiable (which means that it can be separated from the business) and independently as well as reliably measurable. Thus in respect of separability of the item from the enterprise and its independent measurability the definition of intangible assets in Germany is quite comparable to that of the IASC. Nevertheless the German definitions of intangible assets are not in contradiction with the IASC definition but are less specific.

### 2.4 Classification of Intangible Assets

According to § 266 (2) HGB there are three main kinds of intangible assets as following:

Concessions, industrial and similar rights and assets and licenses in such rights and assets

Goodwill

Payments on account (See Chart 1)

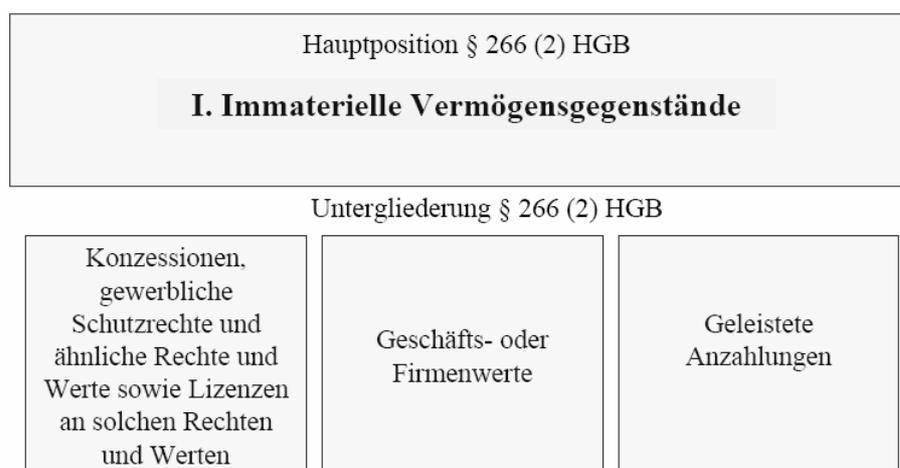


Table 1. Many important specific types of intangible assets

Intangible Assets Category	Example
Marketing	Brand names, logos and trademarks
Technological Process	patents, technical documentation and patent applications
Artistic	Copyrights, musical composition and maps
Data processing	Proprietary software, software copyrights, automated databases
Engineering	Industrial design, patents, blueprints, trade secrets, engineering drawings
Customer	Customer lists, contracts, customer loyalty, open purchase orders
Contracts	Favourable supplier contracts, licenses, franchises held, non competition agreements
Human capital	Trained and assembled workforce, employment contracts/agreements
Location	Leasehold interests, mineral exploitation rights, air rights, water rights, easy access, special views
Goodwill	Institutional goodwill, personal goodwill of a professional, general business going-concern value

(Source: "Valuing intangible assets" March 2003) (RICS Plant and Machinery Faculty)

### 3. Accounting for Goodwill

#### 3.1 Definition of Goodwill

According to § 255 (4) HGB Goodwill is calculated as the difference between the cost of the acquisition and the value of the individual assets of the company acquired less the liabilities at the time of the acquisition. In Germany, if the acquisition cost is higher than the proportional net asset value of the acquired subsidiary, the difference on first consolidation must be allocated to the various asset accounts or be compensated with certain liability accounts of the acquired company (HGB, Para. 301 al. 1, s. 3). The part of the consolidation difference which cannot be allocated to

specific assets, has to be treated as goodwill (“Geschäfts- und Firmenwert”, HGB, Para. 268 al. 2) which is disclosed under the balance sheet heading of intangible assets.

Goodwill may either be positive or negative. Positive goodwill represents benefits attributable to a business which are derived from the combination of the assets of a business rather than from any identifiable asset. Examples include a favourable reputation, customer loyalty, the skills of management, or the workforce. Negative goodwill may result from a bargain purchase or where disadvantages exist, such as poor market perception or on unmotivated workforce.

### 3.2 Accounting Principles for Goodwill According to HGB and GAS

#### 3.2.1 Treatment

The general prohibition to recognize self generated assets applies accordingly to self-produced goodwill (HGB § 255, Para. 4). Accounting for acquired goodwill is regulated by a system of individual rules whereas according to IAS or US GAAP, goodwill accounting rules follow the economic content of the transaction. Therewith, the commercial code does not underlie a continuous conception. (Ordelheide, 1997, p.574).

According to HGB § 255 Para. 4, goodwill originated from an asset deal may be taken up into the balance sheet. It represents the difference between the consideration paid on the acquisition of an enterprise and the current value of the individual assets less its liabilities at the date of acquisition. This rule enables preparers to invest significant amounts in goodwill without rendering an account. (Ordelheide, 1997, p.579).

If the goodwill is capitalized it must be either amortized in each succeeding year by at least 25 percent or be distributed systematically over the years that are likely to benefit (HGB § 255, Para. 4). If not recognized, the corresponding amount must be expensed. It is not allowed to charge goodwill directly against reserves. Although HGB § 255 Para. 4 keeps silent on conditions for exceptional depreciation, it is accepted that for permanent decrease in value the goodwill should be written down to the lower attributable value and can or should be written back if the reason for the write-down has ceased to exist.

Goodwill accounting in connection with the consolidation of capital varies in certain aspects from the individual accounting rules. According to HGB § 301 Para. 1 and 3, the difference between the consolidation difference and the allocated current and book value differences must be capitalized as goodwill. HGB § 309 Para. 1 offers the following options for the treatment of goodwill in group accounts:

Amortization over the four years following the first consolidation at a rate of at least a quarter each year;

Amortization over its economic life without definition of a maximum period;

Set-off against the group’s reserves.

Additionally, in practice combinations of these options and also a proportional set-off against reserves can be observed.

GAS 4 “Purchasing Accounting” (August 2000) in Consolidated Financial Statements limits these options and also fills some of the loopholes, effective since the financial year 2001. (GAS 4-62) Goodwill arising on the consolidation should be recognized as an asset and should be amortized over its expected life. As a general rule, the goodwill should be amortized using the straight-line method and the amortization period can exceed 20 years in justified cases only. The recoverability of goodwill and the remaining useful life should be reviewed annually. Unscheduled amortization should be recognized in the case of impairment. (AS 4-27 and 4-31)

#### 3.2.2 Negative Goodwill

The standard also sets out rules for accounting for negative goodwill. Requirements for the presentation of negative goodwill exist for the group accounts only (§ 309 (2) HGB). In individual company’s accounts a corresponding accrual (provision) can be set up. Negative goodwill should be shown separately in the balance sheet, “Unterschiedsbetrag aus der Kapitalkonsolidierung”, within the equity section on the liabilities side of the balance sheet (§ 301 (3) 2 HGB). It should be released to income when future expenses or losses relating to the acquisition are incurred. If there is no connection to future expenses or losses, the amount by which the negative goodwill is lower than the fair values of the non-monetary assets acquired should be recognized on a systematic basis over the weighted average of the remaining useful life of the depreciable assets. The remaining difference should be recognized as income immediately at first consolidation. (GAS 4-38-41) Overall, GAS 4 is intensely influenced by IAS 22.

#### 3.2.3 Impairment Reviews

German GAAP does not have a notion of impairment reviews. However, exceptional amortisation should be provided for a permanent diminution in value. (§ 253 (2) 3 HGB)

When the circumstances that caused a permanent diminution in value to be recognised change, reversal of the original write down must also be recognised in the profit and loss account. (§ 280 HGB)

## 3.2.4 Accounting Comparison for Goodwill

Table 2. Accounting for Goodwill for Selected Major Industrialized Countries

Accounting for Goodwill for Selected Major Industrialized Countries						
	IASC	U.S.	EC	U.K.		Ger.
Technical References	St. No.22	APB No. 16, 17	7 <sup>th</sup> Dir. A. 19 30, 31	FRED No. 12	ED 47	CC
Positive purchased goodwill						
Recognized as an asset and amortized	M	M	A	A	M	A
Written off against shareholders' equity	U	U	A	U	U	A
Maximum number of years for amortization						
Without specific justification	5	40	5	20	20	4 or less
With specific justification	20	40	NS	NS	40	5 or more
Negative purchased goodwill						
Allocated over non-monetary assets;						
Remaining part treated as deterred income and amortized	P	M(1)	U	U	U	U
Treated as deferred income and amortized	AI	U	A	M	M	U
Taken to shareholders' equity	U	U	NS	U	U	M(2)
Capitalization of non purchased Goodwill, permitted?	NS	U	U	U	U	U
Status of the methods of a accounting treatment:						
M: Mandatory method or treatment.						
P: Preferred method or treatment, or "benchmark" in the IASC terminology						
A: Allowed method or treatment.						
AI: Allowed method or treatment, with additional information in the notes to financial statements.						
U: Unauthorized method or treatment.						
NS: Not specified.						
Technical Abbreviations:						
IASC	St:	Statement				
U.S.	APB:	Accounting Principles Board				
EC	Dir.:	EEC Directive				
	A :	Article				
U.K.		Statements of Standard Accounting Practice				
	FRED: (3)	Financial Reporting Exposure Draft				
Ger.	CC:	Commercial Code				

**Notes :**

- (1). U.S.: Negative goodwill is first allocated to reduce proportionately the value assigned to concurrent assets (except long-term investments in marketable securities and any other long-term assets expected to be liquidated in the near term).
- (2). Ger.: Negative goodwill must be shown separately as equity or between equity and liabilities, depending on the nature of the negative goodwill. It may only be released to income if the enterprise incurs a loss, which was foreseen at the time of acquiring the shares or when considered for the first time, or, it becomes clear on the balance sheet data that it corresponds to a realized profit.
- (3). U.K.: FRED 12 was exposed for comment in June of 1996; it would reduce the current range of accounting choices.

(Source: "International Accounting and Finance Handbook", Chapter 14, "Intangibles")

The following table sets out a survey of practices in accounting for goodwill in some countries. In summary, the systematic amortization of goodwill over its useful life, subject to a maximum period, is the prevalent practice, being mandatory in the United States, Canada, Japan, and Austria. In the EU countries, allowed treatments have been narrowed in either systematic amortization or immediate write-off to reserves, especially in Germany and France. (Frederick D.S. Chol, P. 14 -8)

#### **4. Accounting for Concessions, Brands, Patents and Similar Intangible Assets**

"concessions and similar rights, patents, licenses, brands, processes, rights and similar assets" are not explicitly mentioned in the correspondent balance sheet position according to German rules (Para. 266 (2) HGB Handelsgesetzbuch – Commercial Code), but they are covered as they belong to the term "gewerbliche Schutzrechte", which are mentioned in the rule.

There are acquired identifiable intangible assets and internally generated identifiable intangible assets. Acquired identifiable intangible assets refer to the purchase of patents, trademarks, licenses, or customer lists etc. Internally generated identifiable intangible assets include legal fees, registration costs, and other expenditures directly related to securing rights such as patents or copyrights.

##### *4.1 Accounting Practices in Germany*

According to HGB § 248 (2) an internally generated intangible asset (e.g. software, brands etc.) cannot be capitalised. Both internally developed and purchased software are capitalized and amortized over their estimated useful life.

Intangibles are required to be amortised over their useful economic lives. In Germany, recognized intangible assets - with exception of the acquired goodwill - have to be amortized over the useful life. The company is free in the choice of amortization method between straight-line or declining balance. There has been considerable debate over the accounting treatment of brands. In Germany almost recently rose a discussion whether a brand has a determined useful life and if, which period is adequate for financial accounting purposes. In 1996 the federal court for tax affairs ("Bundesfinanzhof" - BFH) decided that there is no reliable estimation for a specific limitation of the useful life and the amortization of brands. Therefore brands should not be subject to an amortization. As a reaction, the ministry of finance in opposition declared in 1998, that it generally supposes a useful life for brands of 15 years (same as for goodwill) if the owner can not proof a shorter period. As in Germany accounting for tax purposes and the financial accounting are closely connected through the so-called "Maßgeblichkeitsprinzip", (Haller, A., 1992, P.310-323) these statements gain relevance for financial accounting, too.

German GAAP does not allow revaluation of assets in excess of original cost as reduced by depreciation. It is absolutely clear in Germany and France that in accordance with the Fourth European Directive (Article 33, Para. 1), the revaluation of intangible assets is generally not allowed. In Germany, because - due to the strong principle of prudence - revaluation is not accepted for any asset,

##### *4.2 Accounting Comparison for Brands, Patents and Similar Intangible Assets*

The following table sets out a survey of national accounting practices for brands, patents, trademarks, and similar intangible assets in U.S., U.K., and Germany in comparison to IASC. In many countries, the accounting for intangible assets other than goodwill had not been addressed or proscribed in detail, especially in Germany.

Table 3. Accounting for Brands, Patents, Trademarks, and Similar Intangibles for Selected Major Industrialized Countries

Accounting for Brands, Patents, Trademarks, and Similar Intangibles for Selected Major Industrialized Countries					
Technical References	IASC	U.S.	EC	U.K.	Ger.
	IAS No.22	APB No.17	4 <sup>th</sup> Dir. A. 33(1)	FRED No. 12	
Accounting for Purchased Identifiable Intangibles					
Recognized as an asset	M	M	A	A(2)	M
Systematically amortized	U	U	A	M(3)	M
Maximum number of years for amortization					
Without specific justification	NS	40	UEL	20	UEL
With specific justification	NS	40	NS	NS	NS
Is Capitalization permitted for:					
Internally developed Identifiable intangibles?	NS	A(4)	A	U	U
Internally developed brands?	NS	U	(1)	U	U
Status of the methods of a accounting treatment: UEL: Useful Economic Life					
<b>Notes :</b>					
(1) EC: Under the alternative valuation rules of the EEC 4 <sup>th</sup> Directive, “current cost” valuation for intangibles is permitted. This alternative has been reflected in company law by most member states, including the United Kingdom.					
(2) U.K.: Under FRED 12 (an exposure draft) an intangible asset should only be capitalized if it can be disposed of separately and there is a reliable method of measuring its fair value at acquisition.					
(3) U.K.: FRED 12 would establish a rebuttable presumption of a finite life for all intangibles.					
(4) U.S.: Internally developed intangible assets which are not specifically identifiable or have indeterminate lives are generally deducted from income when incurred.					

(Source: “International Accounting and Finance Handbook”, Chapter 14, “Intangibles”)

### 5. Accounting for Payments on Account

According to HGB § 266 Abs. 2, payments on account refer to the related costs on the acquisition of the intangible assets. An intangible asset purchased from a third party is recorded at cost. Examples include research and development expenditure, start-up costs, and etc.

#### 5.1 Accounting Principles for Payments on Account in Germany

Generally, own research and development expenditure is required to be expensed as incurred. (§ 248 (2) HGB) This is due primarily to the level of uncertainty and remoteness of future economic benefit. Internally generated intangible assets, including development costs, cannot be capitalised.

Expenses incurred to start up or expand a business, to the extent they are not capitalised as part of other assets, may be carried forward as an accounting convenience. This item is required to be presented on the face of the balance sheet above fixed assets under the heading “Start-up and Business Expansion Expenses” and must be explained in the notes.

Start-up expenses within the meaning of § 269 HGB are defined as all expenses which are incurred during the start-up phase of a business including the initial establishment of the internal and external organisation and the preparation of the business for the start of the regular production of goods and services. Examples include preliminary market studies and other planning costs, recruitment and training of staff, test runs of production facilities as well as depreciation, rent and rentals, interest and other personnel expenses incurred during the start up phase. Even if such expenditure is capitalised it is deducted from profits available for distribution. (§ 269 HGB)

Amounts recorded in respect of start up and business expansion expenses must be amortised in each following financial year by at least one quarter. (§ 282 HGB)

Capitalisation of start-up and expansion costs is not permitted for tax purposes, and therefore it results in recognition of a deferred tax liability. (§ 274 HGB)

## 6. Conclusion

The nature of intangible assets, particularly the fact that they are often internally generated and therefore give rise to difficult identification and measurement problems, makes the accounting for these assets complex and sometimes subjective. It is an area of divergent practices, particularly on an international level, and also of considerable debate and disagreement standards around the world continues to change as standard-setters continue to modify the accounting rules. Intangible Assets are likely to become increasingly important with the continuing development of high-technology industries and global service markets. The meaningful and comparable accounting for intangible assets is likely to remain one of the key international challenges facing the accounting profession during the next decade and beyond.

## References

- Clare Roberts, Pauline Weetman and Paul Gordan. (2002). *International Financial Accounting*. P. 310. Pearson Educated Limited.
- D. R. Carmichael, Steven B. Lilien, and Martin Mellman. (1996). *Accounting Handbook*. (8th Edition). New York: John Wiley. P. 365
- DRSC (14. November 2001). Entwurf - Deutscher Rechnungslegungs Standard Nr. 14, E-DRS 14, "Immaterielle Vermögenswerte" [Online].  
Available: <http://www.standardsetter.de/drsc/docs/drafts/14.html#tz1>
- Frederick D.S. Chol, *International Accounting and Finance Handbook*. Chapter 14, *Intangibles*. P. 14 -8
- GAS 4 "Deutscher Rechnungslegungsstandard Nr. 4", E-DRS 4, "Unternehmenserwerbe im Konzernabschluss" [Online]  
Available: <http://www.standardsetter.de/drsc/docs/drafts/4.html>
- Haller, A. (1998). Immaterielle Vermögenswerte - Wesentliche Herausforderung für die Zukunft der Unternehmensrechnung". in: *Rechnungswesen als Instrument für Führungsentscheidungen, Festschrift für A. Coenenberg, hrsg. von H. P. Möller und F. Schmidt*, Stuttgart, P. 561-596.
- Haller, A., (1992). The Relationship of Financial and Tax Accounting in Germany: A Major Reason for Accounting Disharmony in Europe. *International Journal of Accounting*. P. 310-323.
- Hervé Stolowy & Anne Jeny (May, 1999). HOW ACCOUNTING STANDARDS APPROACH AND CLASSIFY INTANGIBLES – AN INTERNATIONAL SURVEY. P.6
- HGB (Handelsgesetzbuch)– "German Commercial code"
- "International Accounting Standards 2002", IAS 38 "Intangible Assets", *International Accounting Standards Board (Hrsg)*, -Stuttgart: Schaeffer-Poeschel, 2002, P. 38-10
- Ordelleide, Dieter (1997). Kapitalmarktorientierte Bilanzierungsregeln für den Geschäftswert – HGB, IAS und US-GAAP, in: Forster, Karl-Heinz etc. (eds.): *Aktien- und Bilanzrecht*, Festschrift für Rechtsanwalt Prof. Dr. Bruno Kropff, IDW-Verlag, Düsseldorf, P. 569-589.
- "Valuing intangible assets" (March 2003), RICS Plant and Machinery Faculty. [Online] Available: <http://www.rics.org>



## The Effectiveness of Relationship Marketing Strategies in Department Stores

Suzanne Hanley

Departments of Computing and Business

St. John's Central College

Sawmill St

Cork

Ireland

E-mail: shanley@stjohnscollege.ie

Rose Leahy (Corresponding author)

Department of Management and Marketing

Cork Institute of Technology

Rossa Avenue

Bishopstown

Cork

Ireland

Tel: 353-21-4369590 E-mail: rose.leahy@cit.ie

### Abstract

This paper examines the effectiveness of relationship marketing strategies used by department stores. The primary objective of the study was to discover the extent to which customers use and are influenced by relationship marketing strategies. In addition, the impact that these strategies have on customer loyalty and the development of customer-department store relationships was explored.

The dominant conclusion arising from this study is that customers do perceive that relationships exist between the customer and the department store. These relationships develop as a result of positive personal interactions between customers and department store staff and as a result of certain value driven relationship marketing strategies. Essentially it was determined that the development of these relationships is predicated upon customer satisfaction. Once satisfied a customer is more likely to become loyal and develop a relationship with one store over another. This research concludes that the challenge for department stores is to identify the drivers of satisfaction and in doing so build positive relationships with their customers.

**Keywords:** Relationship Marketing, Customer Loyalty, Customer Relationships

### 1. Introduction

This study examines the effectiveness of relationship marketing strategies within the department store sector of the retail industry. The supermarkets of today are branching out into non-food items and are becoming department stores in their own right, selling such items as clothes, entertainment products for example DVDs, toys, books, cosmetics, non-prescription drugs and many other household goods. Essentially, these department stores are becoming one stop convenience super stores, even selling credit cards, loans and life insurance. These department stores are now offering a vast variety of products and services to a pressurised society that has become time poor but cash rich. In attempting to attract customers, encourage customer loyalty and build strong customer relationships, relationship marketing theory proves attractive for department store managers, with its advocates claiming that it now costs three to five times less to keep a customer than to get a new one (Farber and Wycoff, 1991) and that companies can improve profits anywhere from 25% to 85% by reducing customer defections by 5% (Reichheld and Sasser, 1990).

## 2. Relationship Marketing

Relationship marketing recognises that the focus of marketing is to change from making a single transaction and moving on to the next customer, to building a relationship with existing customers (Christopher *et al.* 1991). Bateson (1995: 457) in his definition of relationship marketing states that *relationship marketing is the union of customer service, quality and marketing. It emphasises the importance of customer retention, product benefits, establishing long-term relationships with customers, customer service, increased commitment to the customer, increased levels of customer contact, and a concern for quality that transcends departmental boundaries and is the responsibility of everyone throughout the organisation.* Gummesson (1999) criticised traditional marketing concepts, saying that they were based exclusively on getting the customer to transact with the organisation. In contrast, relationship marketing is about achieving customer loyalty. Defection as described by Lovelock *et al.* (1999) occurs when customers transfer their brand loyalty to another supplier. Relationship marketing reflects a philosophy expressed often in terms such as “retention marketing” and “zero defection” where the focus is on keeping every customer the company can profitably serve (Reichheld and Sasser, 1990: 105-111). Gamble *et al.* (2005), propose that companies should possess a strong imperative to ensure high degrees of customer loyalty and retention. Research in the credit card industry indicates that a 5% increase in customer retention can lead to a profit improvement of 125% (Gamble *et al.* 2005). Statistics such as these are significant drivers in the move from transaction marketing to relationship marketing.

### 2.1 Customer Loyalty

Lovelock *et al.* (1999) describe customer loyalty as a customer’s willingness to continue patronising a firm over the long term, purchasing and using its goods and services on a repeated and preferably exclusive basis, and voluntarily recommending the firm’s products to friends and associates. The relationship marketing philosophy is grounded on the tenet that as long as customers and consumers continue to perceive that they are receiving superior value from a specific source of supply, then they will remain loyal (Peck *et al.* 1999). According to Berry and Parasuraman (1991), customers will remain loyal if they receive financial benefits, social benefits and/or structural ties. Examples of these benefits include reward programmes and personalised services.

Christopher *et al.* (1991), propose that the objective of relationship marketing is to turn new customers into regularly purchasing clients, and then to progressively move them through to being strong supporters of the company and its product, and finally to being active and vocal advocates for the company (See Figure 1). According to Christopher *et al.* (1991) the traditional marketing mix elements of product, price, promotion and place are the principal elements used to turn prospects into customers, while the focus of relationship marketing is to move customers into clients, supporters and ultimately advocates for a company’s products and services.

According to Christopher *et al.* (1991: 21-22), by placing too much focus on marketing activities directed at new customers, companies often experience the ‘leaking bucket’ effect, where customers are being lost because of insufficient marketing activity generally, and customer service specifically directed to them. They believe that too many firms over-emphasise the identification of prospects and focus on trying to convert them into customers. Hence, under-emphasis is placed on generating repeat business. The underlying rationale, therefore, is that the fostering of long term product (or company) loyalty rather than immediate sales ultimately leads to an increase (or maintenance) of sales (Craig-Lees and Caldwell, 1994). Furthermore, data shows that truly loyal customers are fifteen times more likely to increase spending with a particular store. Caution is required to ensure that the firm strives to keep the *right* customers from defecting. This has been labelled ‘customer relationship economics’ by Grönroos (1993) and ‘customer relationship profitability’ by Storbacka (1993). Essentially they argue that effort should not be directed at customers that are not and cannot be expected to become profitable (Storbacka, 1993; Barnes and Cumby, 1993). According to Storbacka (1993) and Barnes and Cumby (1993) a thorough customer relationship profitability analysis is equally important as effort directed towards creating a loyal customer base and retaining customers.

### 2.2 Relationship Marketing Strategies

The development of loyalty and club marketing programmes by various department stores is regarded as significant in the drive to build customer loyalty and customer-department store relationships. Loyalty programmes are structured marketing efforts, which reward, and therefore encourage, loyal behaviour (Sharp and Sharp, 1997). According to O’Brien and Jones (1995), these came about due to the fact that a company must find ways to share value with customers in proportion to the value the customers’ loyalty creates for the company. According to research, more than 80% of Europe’s consumers now have at least one loyalty card and the number of people with two or more is estimated to be one third of the shopping population (www.click4operator.com, 2/7/07). With the use of loyalty cards in stores today customers weekly shop is analysed and scrutinised by experts known as ‘loyalologists’ who analyse the information collected on computers. Loyalty cards create profiles of individuals’ personal shopping habits. When linked with the personal details that customers disclosed when signing up for the scheme, the store is in a position to target promotions that are tailored around specific customers shopping habits. This in turn it is hoped will lead to the development of relationships. An example of this is the Tesco Babyclub. Following the introduction of this

programme 37% of all expectant mothers joined the baby club in the U.K. and at the end of those two years, Tesco's share in health products was higher than its share in groceries (McDonald, 2004).

Other relationship marketing strategies used by department stores in the drive to build customer relationships include wine clubs, financial services and personal shoppers. The extent to which these strategies influence consumer choice of department store and the subsequent development of loyalty and relationships is explored in this study.

### 3. Research Methodology

In light of the research objectives, focus groups and questionnaires formed the basis for the study. Non-probability sampling methods were adopted where the researchers used their own judgement and knowledge to identify who would be in the sample. For example, it would have been unwise to choose people who do not shop in department stores or who leave the shopping to another family member as they would not be in a position to relate to the topics under investigation in the focus groups or the questionnaire. Five focus groups were held, and semi-structured interview guides were used in order to ensure that the focus groups covered the main issues, while still allowing respondents to reply in a variety of ways and raise issues which were pertinent to the topics being investigated. The questionnaire was given to a sample of one hundred participants, chosen using the same purposive sampling techniques as those used for the focus group sample. The types of questions used in the questionnaire for this study were both open ended questions and closed questions which included multiple-choice, dichotomous and scale questions. The open ended questions in the questionnaire along with the focus group findings resulted in the generation of rich detailed qualitative information.

### 4. Discussion of Findings

This section present a discussion of the empirical research .

#### 4.1 The Role of Club Marketing Programmes in Building Relationships

Club marketing programmes form a significant part of retailers' relationship marketing strategies. It is evident from the literature that Tesco's Baby Club, for example, has been a spectacular success since its commencement (McDonald, 2004). Findings from this research support McDonald (2004). The Baby Club proved to be very popular with the respondents to this research, who appreciated the articles related to caring for children and the money off coupons in the quarterly magazines:

*For every stage of the child's development they send you a magazine on what to look out for as the child develops which I personally found very interesting when I was pregnant with my first baby and didn't have a clue! Also I did use the money off coupons which I found so handy when buying items like nappies and baby food that would have cost me more if I shopped elsewhere.*

Female, 34

According to Berry and Parasuraman (1991), customers will remain loyal if they receive financial benefits e.g. reward programmes and/or social benefits e.g. a personalised service. These benefits can turn customers into clients. This view is seen to be reinforced by that expressed by members of the Tesco Wine Club:

*I'm joined the Tesco Wine Club and am familiar with the range of wines they stock so I ordered wine in bulk for my wedding from Tesco, received a great discount, saved a fortune and gained my clubcard points in the process.*

Female, 35

Much of the relationship marketing literature states that *relationship marketing is the process whereby both parties – the buyer and the provider – establish an effective, efficient, enjoyable, enthusiastic and ethical relationship: one that is personally, professionally and profitably rewarding to both parties* (Porter, 1993: 14). Porter's view is supported by the fact that the personal contact associated with the club marketing programmes was appreciated by respondents joined the Tesco Baby Club and was considered thoughtful or considerate:

*I think it's great how you can get a letter that says for example, that your baby is now six months old and sitting up, so would you like to buy this cushion or now that your baby is eighteen months old, attached is a 25% money off coupon for toothpaste.*

Female, 37

The marketing clubs appear to have some success in capturing the true meaning of relationship marketing. The objectives of relationship marketing strategies are to make customers feel special (Dwyer *et al.* 1987) to feel as though the company cares for them (Tzokas and Saren, 1997) and wants to satisfy their individual needs (Buttle, 1996). Findings of this research confirm that these objectives are met by many of these marketing clubs. Members of Tesco's Wine Club expressed how they felt regarded as valued customers when they received money off coupons for wines that were of particular interest to them. This sentiment of respondents feeling understood and known by the store creates an affinity to return to that store by respondents joined these clubs and hence has an important role to play in loyalty.

This indicates effective use of database marketing by the stores. This reflects the relationship marketing theory of Larson, (1996) and Sisodia and Wolfe, (2000). By building upon the data-based techniques, relationship marketing allows access to information about each customer that is *complete, specific and pertinent* (Larson, 1996: 31) in order to understand *real customers on an individual basis* (Sisodia and Wolfe, 2000) and communicate with them appropriately. According to Evans *et al.* (2004) in this sense, customers get more of what they value in terms of the product and associated services, and marketers incur fewer costs while increasing both relevance and value.

#### 4.2 Loyalty Cards and the Development of Loyalty

Most people nowadays possess loyalty cards, with the questionnaire identifying that 69% of those surveyed owned one while only 31% did not have any in possession. One of the emergent findings from the focus groups is that the loyalty card schemes are not as effective at developing customer loyalty when compared to the club marketing programmes. The questionnaire findings indicated that only 19% of respondents felt that the loyalty cards influenced their decision to stay loyal to a department store. The main reasons put forward in the survey by consumers for loyalty cards not influencing their decision to stay loyal to a store were that more importance was placed on convenience and location, range of products, prices and special offers and because the benefits received from the use of loyalty cards were perceived as insignificant.

Attitudes expressed by participants when exploring these findings via the focus groups towards the relationship development initiative are many and varied. Initial responses were positive and centred on the advantage of being rewarded for shopping in a store regularly:

*I get about €40 back in vouchers every quarter from Dunnes Stores from the points I've built up and I think it's wonderful to get something back from the store that I shop in regularly.*

Female, 37

However, diverging from positive comments such as these were other attitudes towards loyalty cards:

*I refused to get one because I thought they were ridiculous as the amount I perceive you have to spend is very high in comparison to what you get back in vouchers.*

Male, 32

Opinions such as this support the opinion of Ailish Forde, Director General of RGDATA, who maintains that the value back to consumers from loyalty schemes is negligible, while the benefit to the company is great (O'Dea, 2001). Masterson and Pickton, (2004) argue that loyalty cards have induced customer cynicism as card based loyalty schemes are viewed by many as mere sales promotions and customers are likely to have cards collecting points from all competitors not being loyal to any particular scheme. Respondents in the focus groups admitted to using numerous loyalty cards and not being loyal to any particular store:

*Loyalty cards don't make me loyal to any specific store because I shop wherever I can get what I'm looking for and I could easily have two or three cards 'on the go' and it wouldn't bother me which one I use.*

Female, 33

Thus, from the current research findings it is arguable that the increase in loyalty card programmes has given the consumer the ability to choose from other competitors and strengthened the bargaining power of the consumer in the seller-buyer dyad. Despite some initial positive responses to loyalty cards, the dominant attitudes expressed by respondents indicated that these cards do little to generate loyalty. They appear to have a polygamous effect where consumers carry a number of such cards, thus availing of all store offerings as opposed to becoming loyal to just one.

#### 4.3 Financial Services and Relationship Development

To ascertain the value that respondents place on the financial services provided by the department stores, respondents were first queried as to which store credit cards they own, if any. An interesting finding is that the most popular store credit cards availed of by respondents to the questionnaire and the focus groups participants is the Tesco credit card:

*My husband has the Tesco credit card and he gets back loyalty points every quarter for using it, but it's not as much as you would get back if you just used the Tesco loyalty card directly. However, if you pay for your shopping in Tesco using your credit card you receive double the amount of loyalty points, so it encourages you to use your credit card in Tesco, rather than using your credit card to pay for your weekly shop elsewhere.*

Female, 30

There were nine respondents to the questionnaire that use store credit cards which include Tesco's credit card, Marks and Spencer charge card and the Brown Thomas master card. Additional reasons were put forward by the focus group participants for initially selecting the Tesco credit card when compared to other credit cards:

*I chose the Tesco credit card also because the €40 government levy on the credit card is refunded to you by Tesco in the form of Tesco shopping vouchers as a reward for selecting their credit card and when I researched the interest rates on*

other credit cards, the Tesco one was very competitive.

Male, 31

There was only one respondent to the questionnaire that avails of one of Tesco's insurance policies and only one respondent who availed of the Tesco's loans service. However, the car insurance provided by Tesco was seen as competitive by focus group participants:

*My work colleague saved €200 on his car insurance when he changed to Tesco's car insurance.*

Male, 31

This supports a finding by Loveless (2004) who stated that Ronald Dobson from Oldham, Lancashire, saved £300 by switching car insurance to Tesco, received a 5% discount for applying online and when he made a claim the service was excellent. Interestingly, there was scepticism expressed in relation to the life insurance offered by a department store:

*I would be very sceptical about getting something as important as life insurance cover from a supermarket especially if it's cheap and I would wonder would it be any good if it was required.*

Female, 34

This implies a lack of knowledge about how the department stores team up with other reliable and experienced insurance specialists. Tesco, for example, has joined forces with Hibernian Life & Pensions to offer life insurance. This insurance cover proves quite competitive. For example, if a female aged twenty four years old took out this insurance for €250,000 over twenty five years, it is 42% cheaper than Permanent TSB, and for a male of the same age to do the same, it is 28% cheaper than Permanent TSB (Tesco Personal Finance Life Insurance Leaflet, 1/5/04).

It emerged from the research findings that the majority of respondents were not aware that some of these services were on offer by the stores. Despite the abundance of leaflets and information available in-store in relation to the auxiliary financial services, the research findings suggest a requirement to have them advertised more, for example, on television to raise the public's awareness of such services. In addition, it would assist in gaining the trust of consumers to avail of these financial services if they were better informed as to what the services entailed. This is especially true given that the relationship marketing literature suggests that the relationship philosophy relies on co-operation and trust (Sheth and Parvatiyar, 2000).

#### 4.4 Personal Shopping Assistants

Overall, respondents expressed that the concept of having a personal shopping assistant to help customers when shopping was a practical idea. However, it emerged that it was a service that only a minority of focus group participants have used. They unanimously agreed that the general uptake of using this service has not been very high to date. It was considered that it may take time 'to catch on in the Irish society'. Interestingly, it was deliberated that the use of shopping assistants is far more popular in the U.S.A. and participants alluded to the concept as being 'very American'. In addition, only two respondents to the questionnaire have availed of the service. Both respondents had used the Debenhams personal shopping assistant. Christopher *et al.* (1991), believe the objective of relationship marketing is to turn new customers into regularly purchasing clients, and then to progressively move them through being strong supporters of the company and its product, and finally to being active and vocal advocates for the company, thus, playing an important role as a referral source. The importance of this premise is demonstrated by the fact that most participants who had asked for the personal shopping assistant in a department store were those who had received positive feedback from a friend or reliable source. The powerful influence of these 'advocates' resulted in participants in the focus groups utilising this service. Furthermore due to the ensuing positive experience with the personal shopper these respondents agreed that they were so impressed they would have no problem using the service again. A term coined by Scott D. Cook, (1994), is the attempt by businesses to create 'apostles' (Heskett *et al.* 1994: 640) which describes customers who are so satisfied that they even convert the uninitiated to a product or service:

*I heard from a friend that the personal shopping assistant service in Debenhams was excellent so when I needed a dress for my Christmas party, I went there. The shopping assistant who helped me was great and she even took the trouble of ringing about five stores in the U.K. to source the correct size that would fit me so that she could order it specially in for me.*

Female, 33

The participants in the focus groups that had never received help from a personal shopper were impressed with the feedback and hence stated that they would be willing to try this service in the future. As Wong (2000) expressed, loyalty which is the likelihood of a customer returning to an organisation can also be gauged on how willing that person is to perform partner-like activities for the service company - starting with recommendations to friends:

*I thought the shopping assistance I received in Debenhams was fantastic too. I hadn't realised that the assistant finished work at 3.30 p.m. the day I went there as she never mentioned it but she pursued to help me select a top that fitted me until 3.45 p.m. and she didn't act like it was the slightest inconvenience. I was so impressed with the service*

that I took note of her name before I left and wrote a letter to the store manager praising her. This assistant was so helpful that she even posted information related to the clothes directly to me afterwards.

Female, 30

#### 4.5 Customer Service and Relationship Development

As seen from the questionnaire results, customer service from friendly and efficient staff has a significant influence on consumers decision to shop in a store, with 92% believing it would have an effect and only 8% saying it would not. All the focus group participants were of the opinion that good customer service would influence their decision to shop in a store. It is part of human nature for individuals to be sensitive to the treatment received from others and this seems to be the main reason for such a large response rate to the fact that customer service does have an enormous impact on where people shop. The potential for negative word-of-mouth reputation from customers who have complained and were treated badly, or indeed customers who did not complain because they felt it was pointless, is significant (Quinn, 1991). It ultimately results in the customer not returning and furthermore if this customer becomes a 'terrorist', which are customers who are so unhappy that they speak out against a poorly delivered service at every opportunity, then they can even discourage acquaintances from trying a service or product (Heskett *et al.* 1994: 640). Most participants agreed that receiving bad customer service has a significant effect on whether they would return to that store, in particular, if they can buy identical items elsewhere. Therefore, customer service has a significant influence on loyalty:

*If there were two stores in the same area selling the same range of goods and if the customer service in one store was horrendous and it was excellent in the other, then there would be no contest as I would certainly go to the one that was better.*

Female, 38

This supports Berry's (1983) opinion that relationship marketing is applicable when there is an ongoing and periodic desire for the service, and when the customer controls the selection of a service supplier and has alternatives from which to choose. This choice empowers the consumer in the seller-buyer dyad as the direction frequently taken when the consumer is unsatisfied is switching to competitors. According to Christopher *et al.* (1991) customer service is concerned with the building of *bonds* with customers and other markets or groups to ensure long-term *relationships* of mutual advantage. It emerged that unsatisfactory customer service has a definite impact on customer retention:

*If I was treated shabbily, I would go out of my way to change store.*

Female, 31

The research implies that consumers appear to place more importance on customer service personally delivered than on store loyalty schemes. Customer service can be seen as a process which provides time and place utilities for the customer and which involves pre-transaction, transaction and post-transaction considerations relating to the exchange process with the customer (Christopher *et al.* 1979). In regards to the post-transaction exchange process, an insight into the mind of the consumer is apparent from the findings, which suggests the importance that is placed on the returns policy in a store and how a customer is treated when returning goods. This has a powerful effect on how customer service is generally viewed within a store, mainly due to the fact that customers do not like returning goods, and as such, have an increased sensitivity to how they are treated. Quinn (1991) emphasises the importance of listening to the customer – a fairly commonsense approach to understanding customers' needs, but, one that not every firm follows. He also considers it important to create more customer complaints, which may not at first glance appear to be an ideal tactic. However, customers' complaints provide an opportunity to learn. If the customer has taken the trouble to complain, it is in the business's interest to react; if they don't, or do so badly, the customer is unlikely to return. Therefore it is important that complaints are welcomed and acted upon.

## 5. Conclusion

The empirical data generated resulted in an informed understanding of the likes and dislikes of consumers and how they perceive relationship marketing in department stores from their own experiences. It is clear that while relationship marketing strategies are often positively as well as negatively received, this research opens the way for potential areas of future research to further improve comprehension and effectiveness of relationship marketing in department stores.

Interestingly, club marketing programmes are more popular and viewed with more value than loyalty cards. The club marketing programmes are a key strategy in the development of relationships with customers who enjoy the feeling of membership. The findings demonstrated that the club marketing programmes create store loyalty as customers return to the store to receive the benefits. The financial services offered by stores, and the shopping assistants did influence the decision of the majority of consumers to shop in the stores and helped create relationships between department stores and customers that otherwise would not exist.

The importance of customer service emerges as central to the development of positive relationships. Research indicated that customers detested ignorance, lack of helpfulness, lack of friendliness, lack of efficiency and being ignored while

being served due to a staff member continuing a conversation with a work colleague. This is a significant barrier to building relationships with customers as there has to be a two way willingness to cooperate and communicate for the formation of a relationship and to ultimately lead to loyalty. The research has indicated that personal service is more effective in satisfying customers than technology driven loyalty cards. Satisfaction of customers' needs is essential in the quest to generate relationships. Thus, it can be concluded that department store managers must focus on the development of positive personal relationships with customers, supported by the use of relationship marketing strategies that are innovative and value-driven.

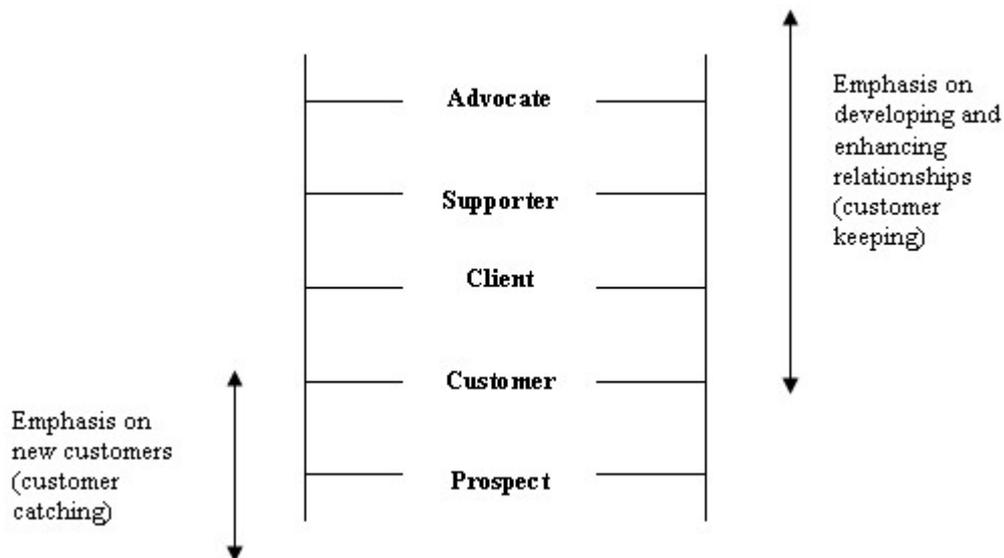


Figure 1. The Relationship Marketing Ladder of Customer Loyalty

(Source: Christopher et al. 1991: 22)

## References

- Barnes, J. G. and Cumby, J. A. (1993). The Cost of Quality in Service-Oriented Companies: Making Better Customer Service Decisions through Improved Cost Information. *Research Paper, ASB Conference 1993*, University of New Brunswick, Canada
- Bateson, J.E.G. (1995). *Managing Services Marketing*, Third Edition, the Dryden Press, Harcourt Brace College Publishers
- Berry, L.L. (1983). Relationship Marketing. In Berry, L.L., Shostack, G.L. and Upah, G.D. (Eds.), *Emerging Perspectives on Service Marketing*, Chicago: American Marketing Association, pp. 25-58.
- Berry, L.L. and Parasuraman, A. (1991). *Marketing Services: Competing Through Quality*, New York: The Free Press.
- Buttle, F. (1996). *Relationship Marketing, Theory and Practice*, Paul Chapman Publishing Ltd., London
- Christopher, M., Payne, A., and Ballantyne, D. (1991). *Relationship Marketing Bringing Quality, Customer Service and Marketing Together*, Oxford: Butterworth-Heinemann,
- Click4Operator.com, (2007). Loyalty Programme Overview" [online], available: <http://www.loyaltycard.in> , [accessed 2/7/07]
- Craig-Lees, M. and Caldwell, M. (1994). Relationship Marketing: An Opportunity to Develop a More Viable Marketing Framework, In Sheth, J. (Ed.), *Relationship Marketing*
- Dwyer, F.R., Schurr, P.H. and Oh, S. (1987). Developing Buyer-Seller Relationships. *Journal of Marketing*, 51, 2, pp. 11-27
- Evans, M., O'Malley, L. and Patterson, M. (2004). *Exploring Direct and Relationship Marketing*, 2<sup>nd</sup> Edition, Thomson Learning
- Farber, B. and Wycoff, J. (1991). Customer Service: Evolution and Revolution. *Sales & Marketing Management*, pp. 44-51
- Gamble, P. R., Tapp, A., Marsella, A. and Stone, M. (2005). *Marketing Revolution*, IBM, in association with the Chartered Institute of Marketing

- Grönroos, C. (1993). From Marketing Mix to Relationship Marketing: Toward a Paradigm Shift in Marketing. *Working Paper, No. 263*, Swedish School of Economic and Business Administration, Helsingfors, Finland
- Gummesson, E. (1999), *Total Relationship Marketing Rethinking Marketing Management: From 4 Ps to 30Rs*, Butterworth-Heinemann in association with the Chartered Institute of Marketing
- Heskett, J. L., Jones, T. O., Loveman, G. W., Sasser, W. E. Jr. and Schlesinger, L. A. (1994). Putting the Service-profit Chain to Work. *Harvard Business Review*, March-April
- Larson, M. (1996). In Pursuit of a Lasting Relationship. *Journal of Business Strategy*, 17, 6, p. 31
- Loveless, H. (2004). The Bananas Are Great But What About Your Loans?. *The Mail On Sunday*, 28/11/04, pp. 27-28
- Lovelock, C. H., Vandermerwe, S. and Lewis, B. (1999), *Services Marketing A European Perspective*, Prentice Hall Europe
- Masterson, R. and Pickton, D., (2004). *Marketing An Introduction*, McGraw Hill Education
- McDonald, T., Sir (2004). Growth of Supermarkets. *Tonight with Trevor McDonald*, Channel ITV1, 29/11/04, 20:00 hrs
- O'Brien, L. and Jones, C. (1995). Do Rewards Really Create Loyalty. *Harvard Business Review*, pp. 75-82
- O'Dea, C. (2001). Shoppers Give Too Much Away with Loyalty Card. *Irish Times*, 1 June 2001
- Peck, H., Payne, A., Christopher, M., Clark, M. (1999), *Relationship Marketing Strategy and Implementation*, Butterworth Heinemann,
- Reichheld, F. F. and Sasser, W.E. Jr. (1990). Zero Defections: Quality Comes to Services. *Harvard Business Review*, 68, 5, p.105-111
- Sharp, B. and Sharp, A. (1997). Loyalty Programmes and their Impact on Repeat Purchase Loyalty Patterns. *International Journal of Research in Marketing*, 14, pp. 473-486
- Quinn, F. (1991), *Crowning the Customer*, Dublin: O'Brien Press 1991
- Sheth, J. N. and Parvatiyar, A. (2000). The Evolution of Relationship Marketing. In Sheth, J.N. and Parvatiyar, A. (Eds.), *Handbook of Relationship Marketing*, Sage Publications, Inc. p. 119, pp. 127-141
- Sisodia, R. S. and Wolfe, D. B. (2000). Information Technology: Its Role in Building, Maintaining, and Enhancing Relationships. In Sheth, J. N. and Parvatiyar, A. (Eds.), *Handbook of Relationship Marketing*, Thousand Oaks, CA: Sages Publications, Inc., pp. 525-563
- Storbacka, K. (1993). Customer Relationship Profitability in Retail Banking. *Research Report*, Swedish School of Economics and Business Administration, Helsinki, Finland
- Tesco Personal Finance Life Insurance Leaflet, 1/5/04
- Tzokas, N. and Saren, M. (1997). Building Relationship Platforms in Consumer Markets: A Value Chain Approach. *Journal of Strategic Marketing*, 5, 2, pp. 105-120
- Wong, A. (2000). The Management of Customer Relationships in the Service Industry. *International Journal of Customer Relationship Management*, 3, pp. 77-92



## Dealing the Problems in Exports through Corporation Social Responsibility

Zhonglei Ju

Qingdao Li Taike Lighting Company, Qingdao 266001, China

Qigang Yuan

School of International Trade, Shandong Economic University

Ph D. Candidate in Nankai University

Jinan 250014, China

### Abstract

With the high speed development of China's export, a series of problems have initiated. For example, the energy crisis and environmental pollution; more dependent on the export of labor-intensive product, the foreign trade industrial set-ups lifting problem; green trade barriers problem; labor problem and constant reinforce of the demand that enterprises of our country should fulfill social responsibility from trans-corporations, etc. Those problems have impeded our foreign trade competitiveness gravely. Corporation social responsibility (CSR) is one of the means in solving the above problems. The author thinks that export enterprises need to think of dealing the problems with CSR.

**Keywords:** Dealing with, CSR, Problems

### 1. Definition of corporation social responsibility

Corporation Social Responsibility means that at the same time enterprises are creating profits and responsible for shareholder's interesting, they should bear the social responsibility to the staff, consumer, community and environment. It involves being in accordance with business ethics, production safety, occupational health, protecting the labor's legitimate rights and interests, protecting the environment, supporting the charities, offering social public service, and protecting the disadvantaged groups, etc. According to the target of corporation social responsibility, corporation social responsibility should bear persons who are correlated with interests of corporation responsibility except that responsible for enterprise shareholder traditionally. Benefit relevance persons are referred to consumers of products, the staff, suppliers, social, Folk Corporation and government, etc. In order to sustain, it's far from enough for enterprises to consider only that the economic environment is responsible for shareholder, but must consider the environment and social factor at the same time, and bear corresponding environmental responsibility and social responsibility. According to the difference of social responsibility enterprises bear, the corporation social responsibility can be subdivide into 10 kinds: Environmental protection, products and service of sustainable development, recycle economy and economy of economizing, the customer and protection of consumers' rights and interests, the safeguard of staff's rights and interests, the participation of persons who are correlated with the interests, support of the disadvantaged groups, the offer of education, administrative system of corporation social responsibility, supply chain.

The factors influencing foreign trade competitiveness of the export product are technological innovation, brand, price, quality and service of product, green products, and whether they can pass the trade barrier etc. Now we will give a concrete explanation how to promote the competitiveness of the products by undertaking .CSR.

### 2. The Question Existing in the Current Situations of Foreign Trade

It is drawn from the index of product international market occupation ratio that although the total amount of export of our country increases year by year, compare with developed country in the international market share of the export product, there is still an obvious gap. In 2003, Germany, U.S.A., Japan arranged the top three in the world's export share, their total export is 1.71 times, 1.65 times, 1.08 times of China separately. Therefore, how to exploit world market further and improve the products competitiveness of foreign trade of our country is a considerable question.

*2.1 The increase of the labor-intensive products export doesn't bring the promotion of the international competitiveness of our country*

It can be drawn from the structure conversion ratio index of export products that though our country's export

commodities at present relies mainly on industrial goods, if further analyzing the export structure of manufactured goods, you will find that a majority of manufactured goods of export are labor-intensive products with low added value, shallow processing degree, and low technical content, or rough machining and primarily processing goods. It is mainly imputed that we utilizes low-priced workforce resources to participate in Processing and assembly session of lower added value. High-tech added value products, especially the products with the independent intellectual property right are very low in specific gravity. The export of a lot of products can't obtain high comparative interests, in the link of low end on the value chain of the international division, which is very easy to be replaced by other developing countries with lower cost. The kind of Extensive export depending on the labor-intensive products for a long time, brings high growth of China's foreign trade while doesn't bring the corresponding improvement of the national competitiveness. Because the export commodities of China are concentrated on some labor-intensive products, the labor-intensive products of the low level are apt to be pressed by multiple pressures, such as corporation's social responsibility, anti-dumping and technical barrier. For example, in mid-June of 2004, EU announces to launch the anti-dumping probe of Polyester filament fabrics originating in China, which is produced cheaply for other countries regardless of the worker's benefits of our country, and the amount involved in the case is up to about 580 million dollars. Barbie Dolls made in China are 20 dollars per unit in U.S.A., but manufacturers of China just can get 35 cents. Ones that really benefit from selling are enterprises of U.S.A., which have obtained most profits from trade. If we want to have considerable improvement in the foreign trade competitiveness of our country, it's needed to change the thinking, and walk out primitive accumulation development model which is depending on cheap workforce.

### *2.2 The question of promoting the industrial structure*

It can be draw from competition index of trade that the ability of digesting and absorbing of our country in technology-intensive industry enhances, which prove the foreign trade competitiveness of our country industry foreign trade competitiveness still lay particular emphasis on labor intensity higher industry, but basically in inferior position of competing in capital-intensive technology-intensive industries. If our country continues developing the labor-intensive industry according to the static comparative advantage, it will result in "The pauperization increase of export ". In order to change this kind of destiny, our country must develop capital and technology-intensive industry with dynamic comparative advantage by advancement of industry and the government's policy, and then promote the industrial structure, realizing the tremendous development of the foreign trade of our country.

### *2.3 Energy crisis and problem of environmental pollution*

The development model of extensive foreign trade which is "high investment, high consumption and low income "in the current makes our country a large consumption of resources and pollution of environment. Our country is a country of a large resource consumption. For over 50 years since China was established, it's more than 10 times of increase in GDP of our country, while the consumption of mineral resources increased more than 40 times. At present, the consumption of the crude oil, raw coal, iron ore, steel, alumina and cement occupies 4%, 31%, 30%, 27%, 25%, 40% in the amount of he world's consumption respectively, but GDP created is only 4% of amount of the world. Some enterprises with serious pollution though have created the output value, have caused serious destruction to mountains and rivers. The expenses of managing pollution have far exceeded its benefit brought. It's calculated that, in China's GDP of 1990s, at least 3%- 7% was obtained by sacrificing our living environment (natural resources and environment). If we want to promote economic strength and competitiveness, we should not only adjust the industrial structure, optimizing and promoting traditional industry, but also make great efforts to develop recycle economy, building the economizing society; abandoning traditional development thinking and mode; adhering to the policy of saving priority; placing economizing resources on the outstanding position in each field of production, construction, circulation, and consumption; making efforts to reduce consumption; reducing the loss and waste; improving resource utilization efficiency; reducing pollution of the environment at the same time, working for the good fortune for descendants.

### *2.4 The prevailing of green trade barrier*

Green trade barriers are measures in international trade, which one country restrict import in order to protect the environment and safeguard the human health, through legislating and making the mandatory technological regulation. They involve if taking the effective environmental protective measure in the whole course from product development, exploiting, producing, packing, transporting, using, circulation, and utilization. With the deep development of foreign trade of our country, green trade barrier gives more and more pressure on expanding the international market of our country. With such ideas as the green, ecology, etc. are approved extensively by consumers gradually, the ecological demand for the fabrics, clothing will be rapidly a main obstacle hindering the export of fabrics, clothing and expanding international market share of our country. The fabrics that our country exports are mainly labor-intensive products, which is in the low ends of the international division and value chain basically. In such fields demanding high investment of technology and capital as the new-type fiber and surface fabric, dyeing and finishing, fabrics for industrial use, environmental protection type products and fabrics machine, etc. it still has a long gap with developed

country. Our country must adjust the developing direction voluntarily, making and implementing green marketing tactics to turn the pressure into motive force of development.

### *2.5 Labor problems and constant reinforce of the demand that enterprises of our country should fulfill social responsibility trans-corporation from trans-corporations.*

Enterprises of our country generally exist such problems, relatively bad working environment, incident taking place frequently, staff legitimate rights and interests being aggrieved seriously, the number of labor dispute rising, phenomenon of child labor without cease, and lacking production safety training, etc. For example, in some labor-intensive enterprises such as clothing, leather, toy, electronic in Zhujiang River Delta, it is the common phenomenon in 12 hours that workers work every day. In delivery period, a lot of factories require workers to ceaselessly work in extra hours, some do not even lay on a day off-hours for three or four months. It is not specific that the staff with weak physique is tired to cause death, and the situation fainting in the workshop is to take place frequently even more. Since the social responsibility standard is issued, on the pressure of consumers' movement, some trans-corporations began to start the verifying mechanism to the social responsibility of enterprises of our country, supervising the Chinese contract factory. In the past, the trans-corporation, while purchasing the goods in China, the buyer only needs materials about offering goods date, price and quality, while the salary and supplies cost were seldom needed, even caring about the working conditions of enterprises. Now the trans-corporations implement the supervision plan of social responsibility, a lot of trade companies demand to assess the Chinese factory before confirming a supplier, it includes quality control, environmental protection and labor's standard. This situation requires our country to face corporation social responsibility, making and implementing relevant tactics.

### *2.6 The scarcity of international famous-brand products our country owns*

Enterprises of our country that is engaged in enterprise's own registered trademark of imports and exports are less than 20% at present, among them there are fewer famous brands. In recent years, the trans-corporation regards famous brand as the tie, structure global production and selling system, regard the famous brand as controlling and dispose the means of resources and factor of production, utilize the famous brand to seize and control the market, the international market has already entered a whole competition era of brands. Because lack of independent brand, the export of our country is still at the stage taking price as main competition means. It has already hindered the promotion of the international competitiveness of our country seriously.

### *2.7 The scale of export enterprise of our country is small, lacking large enterprises*

In 500 tops enterprises of the world, the enterprises of our country selected are only 23, and is basically state-owned. Large enterprises are backbones of one country's national economy and industry. Modern large enterprise and enterprise group can coordinate a lot of transaction "internalization" through management, reducing the transaction cost. Through large scale operation, it can improve the comprehensive utilization ratio in such factors of production as technology, production equipment, management organization, market channel, information and raw materials, etc. By increasing technology, promoting the technological progress and reducing the operating cost of production, it can not only improve the input and output rate, obtaining large-scale production; but also increase the ability that enterprises undertake the market risk. One of the signs of a national competitiveness is to see how many world-class enterprises with international competition advantage there are in the country.

In the face of the current situation of the foreign trade competitiveness of our country and existing problems, how to solve these problems and improve the foreign trade competitiveness of our country further is the question that government, scholar and enterprise should think over. It's thought a kind of settlement to realize the further promotion of the foreign trade competitiveness taking the opportunity of advancing CSR.

## **3. It Will Help to Promote the Foreign Trade Competitiveness of the Products by Advancing Corporation Social Responsibility**

### *3.1 Advancing corporation social responsibility and technological innovation of the products*

The technological innovation of the products can promote the competitiveness of the products. Success of three major electric apparatuses Companies of Sony, Panasonic and Sanyo of Japan is to a great degree due to carrying on the technological innovation of the products constantly, making their own products stay leading position all the time. Sony develops over thousands of kinds of new products every year, on the cusp in variety; Panasonic let customers of world with high-quality service "use the products of Panasonic reliantly very much "; Sanyo develop products at low cost and make price differential of competition in principle of "Users can afford ". Different competitive strategies can all make enterprises obtain the competition advantage. The improvement of enterprises' competitiveness should depend on the technological innovation. The technological innovation can make the competitive ability on the whole of manufacturing industry of one country obviously higher than other countries, too.

It's indicated that the enterprises can't only pay attention to the products profit at the moment to advance corporation social responsibility. They must have products and service corresponding to sustainable development strategy so as to keep the sustainable development of enterprises in the environment with keen competition. This impels enterprises to

pay attention to the technological innovation, realizing development of the products and further upgrading of the products. So advancing corporation social responsibility itself requires the technological innovation of the products in order to realize sustainable development. Take an example, air conditioner is the first energy consumption for family daily, large power consumption, service time centralized, which have directly led to the big pressure of the electric wire netting in peak period of power consumption, and the supply of electric power is seriously insufficient. In light of this situation, the strategy of Hisense is basic on technology to realize the goal of sustainable development of enterprises. Since the research institute of air conditioner was established in Hisense in April of 1995, it carried on multiple technological autonomous innovation and mastered the Inverter Air Conditioner. Because of mastering inverter technology, Hisense has put out the DC inverter products which are above 3.9: 1 in E.E.R, and the highest one is up to 7.01. 1. On the basis of achievements, Hisense initiated alliance of Inverter Air Conditioner, putting circulation economy into the design of various projects, products and services, developing actively harmless or low-pollution new techniques, new technologies, and cutting raw material and energy consumption. The sales achievements of the Inverter Air Conditioner of Hisense and close attention to consumer demand make Hisense occupy "Leader of Inverter technology". Hisense extend to inverter refrigerators and color TV. With such efforts, the export markets of Hisense air conditioner spread all over more than 50 countries, realizing 260% of growth. It can be found out from this case of Hisense, advancing corporation social responsibility to realize the sustainable development of the products should be often combined with technological innovation. Technological innovation serves for sustainable development of society directly, which embodies social responsibility consciousness of enterprise.

### *3.2 Advancing corporation social responsibility and the competition of the products' brand*

The competition of brand is the promotion and continuity of competition of goods, As the products or the industry develop to ripe stage, the position of brand in the competition of the goods will stand out. The famous-brand goods have strong market competitiveness. It's shown from the United Nations development plan administration statistics the famous brand in the proportion of global brand is less than 3%, but the market occupation rate of the famous-brand goods is up to 40%, some industrials as the computer software, etc. are even up to more than 90%. Whether there are world-famous brands in the export commodities, and the number of the brand independently export is one of the important behaviors of one country's foreign trade competitiveness power. The brand construction of our country has obvious disparity with developed country. According to the United Nations Industrial Development Program, there are about 8,050,000 kinds of famous-brand goods in the world, and among them the developed country and new developing industrialized economy have more than 90% famous-brand ownership, which are in the monopoly position. At the beginning of 2004, 100 brands with strongest influence power of the world were announced which are evaluated by the internationally famous "value of the brand" Appraisal agency - the brand laboratory of the world, etc, and in our country only brand of Haier ranked. Lack of independent brand has already become a main problem our country marching to a strong nation of the foreign trade.

The construction of brand is a systematized project, the emergence of a brand needs complicated and careful work very in large numbers. There should be a good corporation culture in the construction of the brand, strong scientific research strength, perfect quality certification system, overall marketing network and thoughtful after-sale service. In the competitiveness of brand, there are two most important elements: Quality and culture. Quality is the foundation of brand. Without quality as a powerful point, in the fierce market competition, the brand can't obtain the advantage of the competition, even to survive. Culture is the core that the brand turns from the material competition to spiritual one. "Half of the brand is the culture". In modern times when consubstantial goods flood the market, the brand not only plays a role in distinguishing source of the goods, but has become a kind of carrier spreading culture. The psychologically satisfied utility it brings to consumers far surmounts the value of the foods themselves, and can make consumers obtain satisfaction culturally and psychologically. Therefore, it's favorable for enterprises of our country to bear CSR to have the space of enterprise's one's own development, and to establish brands service better through transmitting social function and social responsibility that enterprises bears to consumers. The international food Ltd.-Chengyi has paid attention to the safe hygiene of the products since the beginning foundation of the factory. It has made a series of rules and regulations, in order to guarantee food's security, and give consumer's confidence in the food security; At the same time it adopts the flour made by the advanced craft, without fried, and the nutritional components are not destroyed, noodles chewiness, health hygiene, low fat. There are information indicated on the packaging of products of Chengyi company, as the producing area, composition, taste, operation method, making public service, date of production, validity, etc. on the packaging of a sincere products of food company. It enables consumers to buy the food which accords with the hygiene and health standard according to food packing. In order to strengthen the control of the flow of company products, react rapidly to the products which present the quality problem, and avoid causing more losses to society, Chengyi international food Ltd. makes the products recalls procedure, giving prompt, appropriate treatment to the products with problems, making it no longer endanger consumers finally. It is exactly the attention to corporation social responsibility of Chengyi international food Ltd., that make its products have good public

praise in the international market, its sales amount realized the growth of three -figure number in 2002, and after this the increasing degree for three years in succession has been above two -figure number.

### *3.3 Advancing corporation social responsibility and cost reduce of goods*

If enterprises consider recycle economy and saving economy while bearing social responsibility, reaching the effective use of the physical resources and economy of ecological sustainable development, they can lower costs and strengthen the competitiveness of the products on the basis of relatively less consumption of resource and energy. For example, the group of northern Shandong uses industrial ecology and circulation economic theory to guide practice, solve the technological difficulty, and form three ecological industries chain: Ammonium sulphate cement chain, the multi-purpose chain of sea water and Salinity and power chain, which make the solid offal utilization ratio of the main device of enterprises up to 100%. The group of northern Shandong realizes 5,230 million yuan of output from January to October in 2005, profits tax 754 million yuan, and the profit 700 million yuan, which increase by 53%, 53%, 55% compared with the same period of last year separately, having obtained very good economic benefits. Another field in which the potential cost economizes is the advertising expenditure. Because of contribution made in social responsibility, the enterprises will obtain free and extensive propagandas from consumers and users.

### *3.4 Advancing corporation social responsibility and the promotion of quality of products*

The quality and service of the products are important factors of the products competitiveness. Enterprises should offer good product quality and service to consumer to bear CSR. In order to improve the quality, the group of Glanz innovated constantly in management and service except technology, and stifled symptom of every quality hidden danger, remained stability of quality. Glanz is one of the most intensive, soundest, and perfect after-sale service network enterprises in Chinese electrical home appliances industry. It has professional service teams of thousands of people and 4000 after-sale service sites spreading all over the country. The quality and service strategy of Glanz make its products obtain the considerable economic benefits. The market occupation rate of the microwave oven of Glanz was 25.1% in 1995, ranked primarily in Chinese market. In 1999, the sales amount of microwave oven of Glanz was 2,960 million Yuan, domestic sales and exports accounting for 50% respectively, and the domestic occupation rate of market is 67.1%, ranking the first place steadily. In 2001, the market occupation rate of the microwave oven of Glanz was up to 70%, export exceeded domestic selling for the first time. These data confirms a principle invariably: Only those enterprises which firstly consider the rights and interests of the customer constantly, daring to be responsible, could establish in an unassailable position in the fierce market competition.

### *3.5 Advancing corporation social responsibility and green products competitiveness*

It is exactly one of the contents of CSR to advocate the green products. With consumers' approval on safety, energy-conserving, pollution-free of products, the green products have wider and wider market and competitiveness nowadays. It's surveyed that the consumers would like to pay the price higher than the general products to buy the green products. The volume of global green products trade is 250,600 million dollars at present, 106 billion dollars of North America among them, 100 billion dollars of Europe, and 50 billion dollars of the Asian-Pacific area, The enormous market of green trade is not only a kind of opportunity but also a kind of challenge to our country. Haier specially organized a leading group at one time, studying how to reduce the refrigerator 50% of the consumption of Fluorine chlorine. The environmental protection refrigerator it developed won soon "The green sign of Europe ",and opened the European market. The quantity of export to German was up to more than 50,000, occupying the first place in Asian countries on the quantity. Huilin Company utilizes the competitiveness of the green products to open up the product market in Guangzhou. The traditional pencil pole is made from timber, for this reason, about 500,000 cubic meters of high-quality timber are consumed every year in the whole world. Huilin company bought patent " By abolished newspaper to substitute the timber to make the pencil pole " in 1996, with great effort, finally it develop high-quality green pencil with abolished newspapers. A cubic meter of high-quality lindens wood can only produce 30,000 branches of pencils, while 1 ton of useless newspaper can produce 200,000 Branches. It ended the history of 300 years to make pencil by cutting down forests. This kind of using useless newspaper directly reduces the secondary pollution and large consumption of water and electricity in recycled papermaking with raw materials. With the approval of the green products by the society, a lot of Chinese demand to popularize the green pencil by call from all parts of the world. The green pencil of Huilin Company even caused a sensation at the "GLOBE 2000" fair of international green products in Vancouver. It implies advancing corporation social responsibility can strengthen international competitiveness of the green products.

### *3.6 Advancing corporation social responsibility and dealing with the trade barrier*

Technological trade barrier and social responsibility barrier made the pressure of entering international market for the products of our country bigger and bigger. As a developing country, it is the only way of ranking among the powerful country of commerce to accelerate the electronic product export, but one of the difficulties faced is the various informative products importing standard which the developed country makes. For instance: Antipollution standard,

noise standard, electromagnetic radiation standard, etc.. The fabrics of the export of our country are mainly labor-intensive products, in the low ends of the international division and value chain basically. Fields such as the new-type fibre and surface fabric, dyeing and finishing, fabrics for industrial use, environmental protection type products and fabrics machine, etc. which expected much science & technology and capital investment, have a long way to go with developed country. So, aspect as environmental technical index, it is apt to award people with the handle. Such labor-intensive enterprises as clothing, textile, shoes-making, electronic factory, etc. are impacted greatly at present. And it helps the products to wind these trade barriers and enter the international market smoothly that enterprises bear social responsibility, improves the foreign trade competitiveness of the products. The industrial Limited Company of China Jialing Co. is one of the biggest motorcycle manufacturing enterprises of China, among fierce international market competition, good imperial tomb reply about demand of enterprise of social responsibility actively, put the standard of regarding regulation of international supreme environmental protection as the motorcycle and producing, the demand for meeting the technological quality level of international market in abolishing such indexes as vapor discharging, security, noiseless., makes it exports goods and earns foreign currency 20,420,000 dollars in first quarter of 2006, It is listed in the famous-brand list of 2005 to 2006 exports that will foster and develop especially by national Department of Commerce.

### Conclusion

To a conclusion, advancing CSR is favorable to the products' technological innovation, and the forming of the brand products, helping to economize the cost of goods, improving quality and service of the products, helping to form the green products competitiveness, helping the products to wind various kinds of trade barriers, economizing the transaction cost. Therefore, advancing corporation social responsibility is helpful to dealing with the problems.

### References

- Fan, Weitang. (2000). *Chinese energy in the 21st century - Challenge, Expectation and Opportunity*. Eastern boiler, (2): 18-21(in Chinese).
- Lu, Juan. (2002). *Modern enterprise's brand development strategy*. Nanjing: The publishing company of Nanjing University: 90-100(in Chinese).
- Wang, Hui. (2005). *Discuss corporation social responsibility*. Wuhan: HuaZhong University of Science and Technology, 5-12(in Chinese).
- Song, Chengquan. (2004). *March toward the powerful country of commerce - China's foreign trade competitiveness is studied*. Beijing: The commercial publishing company of China: 275-280(in Chinese).
- Qi, Zhenhong. (2003). *Green Management: Source of the new competitiveness in 21st century*. International trade question, (11): 23-25(in Chinese).
- Tang, Lin & Yang, Mei. (2006). The case of Competitive responsibility. *WTO economic guide*, (3): 60-61(in Chinese).
- Dr.Saleem Sheikh. (1996). *Corporate Social Responsibility: Law and Practice*. Cavendish Publishing Limited: 180-190.
- Diane L. Swanson. (1999). Toward an Integrative Theory of Business and Society: A Research Strategy for Corporate Social Performance. *The Academy of Management Review* (24):506-521.
- Isabelle Maignan, David A. Ralston. Corporate Social Responsibility in Europe and the U.S.: Insights from Businesses' Self-Presentations. (2002). *Journal of International Business Studies*, (33):25-45.
- William C. Frederick. (1994). From CSR1 to CSR2. *Business & Society*, 2(33):150-164.



## Work Values of Baby-Boomers and Generation X of the Chinese Community in Malaysia

Lim Yet-Mee

Department of Management, Universiti Tunku Abdul Rahman, Selangor D.E., Malaysia

Tel: 60-03-9019-4722 E-mail: limym@mail.utar.edu.my

Pek Chuen-Khee (Corresponding author)

Department of Economics, Universiti Tunku Abdul Rahman, Selangor D.E., Malaysia

Tel: 60-012-682-3811 E-mail: pekck@mail.utar.edu.my

Yee Aik-Phoay

Faculty of Business & Accountancy, INTI International University College

Negeri Sembilan D.K., Malaysia

Tel: 60-012-489-9108 E-mail: benny\_yee@hotmail.com

### Abstract

Organizations in the era of globalization require not only an efficient and cohesive pool of workforce but also one with strong work values. The said workforce in general comprises the Baby-boomers (aged 40 to 60 years) and Generation X (aged 25 to 39 years) workers. The Generation X undoubtedly, will be slowly replacing the boomers in the labour force. Rightfully so, the former would be playing a more active and dynamic role in the labour market. Hence, a comprehensive study of their work values with comparison to their Baby-boomers counterpart is timely. This study adopted Mantech's (1983) Work Value Questionnaire to elicit the responses of the target groups. The work values of the boomers and X-ers of the working ethnic Chinese in Malaysia may not be significantly different but findings have sufficient evidence that the X-ers are more money-oriented than the boomers though both generations may agree that work values categories which are more extrinsic and materialistic in nature are more important to them. The results of this study will be helpful for the organizations, particularly those of the Chinese-based to review, if required, their current human resource policies.

**Keywords:** Work values, Baby-boomers, Generation X, Working ethnic Chinese

### 1. Introduction and research objectives

Work values per se are acquainted with a wide scope of definitions. Furnham *et al.* (2005) reviewed that though there exists extensive literature on work values, disagreement on its meaning and measurement remains unresolved. In the works of Selmer & De Leon (1996) and Parsons *et al.* (1999), work values were envisaged as cultural values while George & Jones (1997) perceived it as personal values. However, for the purpose of this study, work values comprised one's preferences for the type of work or work environment, beliefs about the importance of the prerequisites in a work situation and the guiding principles of job related decisions, action and behaviours. This definition was rather analogous with the one used by Dose (1997) in her study on the application of work values to organizational socialization.

The measurement and assessment of work values differ from literature to literature. Harrington-O'Shea Career Decision Making System which consists of 14 work values (creativity, good salary, high achievement, independence, job security, and etc.) was used by Lebo *et al.* (1995), to examine high school students' selected work values in Australia, Canada, Finland, France, Norway and the United States, and found that work values are more similar than otherwise across countries and cultures. The 25-item Manhardt Scale (risk taking, value of ample leisure, job prestige, autonomy, working condition and routine, and career advancement and etc.) was used by Abu-Saad & Isralowitz (1997) to study gender as a determinant of work values among university folks in Israel and found that the perception of gender-based differences in work values has to be revisited. Chen *et al.* (2000), employed Super's Work Value Inventory with 45 attributes such as reasonable boss, seeking result, stable work, pay increase, work freedom and etc. to assess the Taiwanese undergraduates' perception of work values and found that supervisory relations, work surroundings and way

of life to be the top three values appreciated by the respondents. Wong & Chung (2003) however, used a combination of Hofstede Value Survey Module and Chinese Value Survey with five underlying dimensions such as congenial job context, job status and prospects and etc., to study the work values of Chinese food service managers in Hong Kong and revealed that secure employment, pleasant working environment, high earning and good work relations with supervisors and peers are the more important work values.

Some other researchers have been dynamic in designing their own assessment methods, namely Elizur (1996), employed a self-constructed 24-item Work Value Questionnaires (advancement, personal growth, contribution to society, esteem, convenient hours and etc.) to look at the relationship between work values and commitment, revealed that there exists stronger correlation between commitment and cognitive than instrumental work values. Nevertheless, for the purpose of this study, the Mantech (1983) 37-items Work Values Questionnaire with an addition of four attributes namely opportunity to work in teams, honesty and integrity, ethical behaviour at work, and emphasis on quality, identified by a focus group, was employed to study the work values of two generations of Chinese workforce in Malaysia. These 41-work values items were then categorized into four main groups; work relationship, influence and advancement, financial and working conditions, and autonomy and use of skills, as identified by Furnham *et. al.* (2005).

This study focused on the ethnic Chinese in Malaysia as a respond to the work by Tuch & Martin (1991) which noted that there have not been many studies addressing the issues of work values with regards to the Eastern world and ethnic groups.

The Malaysian Chinese pools up 24 percent of the 24 million population ([www.cia.gov](http://www.cia.gov), 2005) in the country which has a labour force of 10.5 million ([www.cia.gov](http://www.cia.gov), 2004) workers. As one of the largest ethnic group in Malaysia that contributes to the nation's manpower, investigating the work values of the Chinese community in Malaysia is definitely of great interest.

This study intended to answer the following research questions on the work values of the Baby-boomers and Generation X of the Chinese community in Malaysia:

*Research Question 1:*

Is there any significant difference in the degree of importance of the four categories of work values between the Baby-boomers and Generation X, respectively?

*Research Question 2:*

Are there any significant differences among the degree of importance for the four categories of work values within each generation?

*Research Question 3:*

Are there any significant differences among the ranking of importance for the four categories of work values within each generation?

The last research question intended to seek a deeper understanding on the importance of the work values categories as rating the categories of work values highly (lowly) to indicate their degree of importance, does not necessary reflect high (low) rank levels in terms of their importance.

Baby-boomers and Generation X are the two existing generations in the current pool of the workforce. In the work of Smola & Sutton (2002), the work values identified for comparison of the two generations of workers were desirability of work outcomes, pride in craftsmanship and moral importance of work. The period defining generation of Baby-boomers and Generation X varies. Based on various literature sighted, the Boomer's birth may range anywhere from 1940 to 1946 and end in 1960 or 1964. For the case of Generation X, it begins somewhere in the early 1960s and end in 1975, 1980, 1981, or 1982. However, for the purpose of this study, boomers are people aged between 40 to 60 years old, while X-ers comprises those between 25 to 39 years of age (Kotler & Keller, 2006). The former embraces the idea of entitlement and expecting the best from life (Kupperschmidt, 2000), while the latter survives through rapid changes and insecurity, and lack of strong mores leading them into becoming more individualistic (Jurkiewicz & Brown, 1998). The results of the study of Smola & Sutton (2002) revealed that generational work values do vary and it does change as one ages, and saw that there has been an increased need for balance work and personal goals within the American labour arm. Loscocco & Kalleberg (2001) found that older men gave more commitment to their jobs than younger men in Japan and the United States. This phenomenon was also revealed in this study implying that older Malaysians give more obligations to work than their younger compatriots do.

## 2. Methodology

A group of randomly selected Baby-boomers and Generation X of the ethnic Chinese in the Klang Valley responded to a self-administered questionnaire comprising 41 work values identified from Mantech (1983) 37-item Work Value Questionnaires and four work values i.e. opportunity to work in teams, honesty and integrity, ethical behaviour at work,

and emphasis on quality. These work values were classified into four major categories namely, work relationships, influence and advancement, financial and working conditions, and autonomy and use of skills. Work relationships comprised 15 sub-items (relationship with work colleagues, harmony, feedback, opportunity to work in teams and etc.), influence and advancement with nine sub-items (influence within work organisation, high job status, advancement and chances for promotion, managerial respect, and etc.), financial and working conditions with 12 sub-items (benefits, pay, human resource support, company image and etc.), and autonomy and use of skills with five sub-items (independence, autonomy, job interest and etc.).

The respondents were interviewed in the months of August to October 2005 and asked to rate the importance (1 = not important to 6 = extremely important) of each work value in making them happy and contented, and guiding their job-related behaviours and decision-making, in their work. The reliability of the categories of work values scale was at Cronbach's alpha 0.85. The respondents then ranked the four categories in order of their importance to them ("1" being the most important, "2" being second most important and "4" being the least important.).

A total of 150 respondents from the working class of the ethnic Chinese answered the questionnaires. With a respondent mean age of 34 years, this sample comprised 30 percent of working Baby-boomers and 70 percent of working Generation X. The vast majority were females (60.0 percent) and males (40.0 percent) whom 10 percent of the both sexes had been in the workforce for a year or less, 26 percent between one to five years, 29 percent between five to 10 years, while those who had been in the labour force for 10 to 20 years was 22 percent and 13 percent of them had served the workforce for more than 20 years. When analyzing the data on years serving their existing work organizations, the same respondents revealed that 40 percent of them had served their existing work place for a year or less, 36 percent for one to five years, 11 percent for five to 10 years and the balance of 13 percent for 10 years and above.

Majority of the respondents (68 percent) were university graduates with at least a first degree or more. Only about nine percent of them were either with no formal education (one percent), or primary education (two percent) or secondary education (six percent). A total of 23 percent of the sample respondents were equipped with certificates, diploma or professional qualifications.

The statistical methods used to process the collected data were descriptive statistics and t-test analysis with the Statistical Package for the Social Sciences (SPSS) and Tukey Kramer procedure with Prentice Hall Statistics (PHStats).

Four separate t-test analysis were ran to answer the first research question, i.e. if there exists any difference in the degree of importance of work relationships between the two generations and the same for the three other categories, namely influence and advancement, financial and working conditions, and autonomy and use of skills.

The Tukey Kramer procedures were used to obtain the results to answer the second and last research questions i.e. to check if all the four categories of work values do differ in their degree of importance (second research question) and ranking of importance (third research question), respectively, for each of the individual generations. Four such procedures were processed.

### 3. Results

*Research Question 1: Is there any significant difference in the degree of importance of the four categories of work values between the Baby-boomers and Generation X, respectively?*

The results indicated that at the five percent level of significance, there were no significant differences in the degree of importance of the four categories of work values respectively, between the Baby-boomers and Generation X. These implied that all the work values as individual categories were equally important to the two generations. The mean scores of the four categories of work values for the boomers and X-ers respectively were (4.93, 5.02) for working relationships, (4.66, 4.75) for influence and advancement, (4.91, 5.02) for financial and working conditions, and (4.97, 5.09) for autonomy and use of skills.

*Research Question 2: Are there any significant differences among the degree of importance for the four categories of work values within each generation?*

According to the Tukey Kramer procedure, the Baby-boomers revealed that there were no significant differences among the degree of importance for all the categories of work values at the level of significance 0.05, indicating that work relationships, influence and advancement, financial and working conditions, and autonomy and use of skills, as work values are equally important to them. However, if the descriptive statistics were used, autonomy and use of skills (mean = 4.97) scored the highest degree of importance among all the work values categories, followed by work relationships (4.93), financial and working conditions (4.91) and the least, influence and advancement (4.66).

The results for the Generation X however, revealed slight differences from the boomers at the similar level of significance. It was found that at least two or more work values categories do not share similar degree of importance in the X-ers. Tukey Kramer procedure revealed that work relationships, financial and working conditions and, autonomy and use of skills, each had significant difference in the degree of importance when compared respectively to influence

and advancement. However, there had been no significant difference when work relationships, and financial and working conditions were compared. Similar results were found for the comparisons between work relationships, and autonomy and use of skills, and between financial and working conditions, and autonomy and use of skills respectively.

Nevertheless, the descriptive statistics revealed that for the Generation X, the degree of importance of the work values were rated highest for autonomy and use of skills (mean = 5.09), followed by financial and working conditions (5.03), work relationships (5.02) and influence and advancement (4.76).

*Research Question 3: Are there any significant differences among the ranking of importance for the four categories of work values within each generation?*

The results of this research question revealed a different pattern for the boomers. It was shown that boomer's ranking in the importance of the four work values categories revealed significant differences ( $\alpha = 0.05$ ) in at least two or more work values categories according to Tukey Kramer procedures.

For the boomers, work relationships work value category was ranked to be more important than influence and advancement. The latter work value category was also ranked a less important work value category than financial and working conditions, and autonomy and use of skills when compared respectively. The ranking of the importance of work relationships however was not significantly different from financial and working conditions, and autonomy and use of skills respectively. From these results, it was not possible to draw an ordinal pattern of the ranking of the importance of the various work values categories and this may be contributed by the boomers' results in research question two, which revealed insignificant differences among the degree of importance of the work values.

However, from the mean values of each work values categories, the ranking of the importance were financial and working conditions (mean = 1.95), followed by work relationships (2.25), autonomy and use of skills (2.59), and influence and advancement (3.21).

The results from the X-ers were consistent with those of the second research question, and this aided the study in further understanding the importance of the work values categories. Similar to the boomers, Generation X's ranking in the importance of the four work values categories revealed significant differences ( $\alpha = 0.05$ ) in at least two or more work values categories. The work relationships, and influence and advancement do not show any significant difference in terms of their ranking of importance. Similar results were gathered for the pair of work relationships, and autonomy and use of skills and pair of influence and advancement, and autonomy and use of skills respectively.

However, the comparisons between working relationships, and financial and working conditions, and between influence and advancement, and financial and working conditions respectively, indicated that there are significant differences between the rankings of importance of the two work value categories with financial and working conditions being ranked higher than working relationships, and influence and autonomy respectively. The financial and working conditions work value category was also ranked higher when compared to autonomy and use of skills.

From these results, an ordinal pattern of ranking was possible with financial and working conditions (mean = 1.92) being ranked the higher work value category than the other three work values categories (work relationships (2.50), and autonomy and use of skills (2.70) and, influence and advancement (2.87)), when compared respectively. Coupled with the descriptive statistics and findings from the second research question which indicated the insignificant differences among the degree of importance of work values categories of work relationships, financial and working conditions, and autonomy and use of skills, an insight revealing that financial and working conditions was the most important work value category, followed by work relationships, and autonomy and use of skills and, influence and advancement as the least important work value for the Generation X, was suggested.

#### **4. Discussions and conclusions**

The Baby-boomers and Generation X of the working ethnic Chinese in Malaysia have in common similar understanding and application of work values when a between- comparison was studied. Though the within-comparison studies in the degree of the work values categories importance saw a slight difference, the ranking of the importance of the work values were similar for the two generations.

The results of the study in attempting to address the issue of significant differences in the degree of importance of the four work values categories revealed that between both generations, these work values were equally important to them. The findings showed that both the generations might share similar life principles, which may have moulded their perception of work. This possibility may be consistent with the findings from the works of Wong & Chung (2003) and Loughlin & Barling (2001).

Wong & Chung (2003), articulated that the ethnic Chinese has shared a common cultural value since ages ago, which has contributed to the formation of a clear and consistent system for generations, while Loughlin & Barling (2001) found that one of the major factors influencing work values had been the family influences. Undeniably, the boomers are the parents of the X-ers, whom may have guided their children in their work values through the sharing of strong

cultural and life values. Confucianism, which is still the basic doctrine of the Chinese families, stressing on filial piety, would have made the inheritance of these strong Chinese cultural values possible.

The work of Smola & Sutton (2002) which compared the work values between 1974 and 2002, prompted the possibility of a study based on their definition of "generation" to be carried out on the ethnic Chinese in future. The findings then compared with those of Smola & Sutton, which suggested that there were some generational work values differences, may reveal new and innovative insights to research of similar areas.

The degree of importance of the four work values categories based on the ratings within each generation, compared, suggested slight difference between the boomers and X-ers. The former rated autonomy and use of skills as having the highest degree of importance followed by work relationships, then financial and working conditions, and the least, influence and advancement. The slight difference suggested was the X-ers while maintaining the highest and least degree of work values categories importance as the boomers, rated financial and working conditions higher than work relationships. This suggested that boomers weigh work relationships, which are non-materialistic, heavier than financial and working conditions, which are materialistic in nature, as compared to X-ers whom are otherwise in their preference. These findings may indicate that the younger generation of working Chinese is more prone to wealth and material accumulation than the boomers, which is quiet a natural behaviour of the young but less for the boomers whom may have saved sufficiently. This implies that future human resource rewards and compensation should emphasize more on extrinsic rewards to motivate the younger workforce while intrinsic rewards will do fine for the senior staff.

Rating a work value category as more important than the others does not necessary mean that it ranked higher. Though from the findings in the degree of work values categories importance, autonomy and use of skills was rated highest, it was not been ranked alike. This work value ranked third within each of the both generations, whom shared similar ranking in the importance of the four work values categories. Financial and working conditions was ranked the most important work value categories (boomer's mean = 1.95, X-ers mean = 1.92), followed by work relationships (2.26, 2.50), then autonomy and use of skills (2.59, 2.71) and the least important, influence and advancement (3.21, 2.87).

From the findings, it is shown that though autonomy and use of skills was rated the most important work values categories, it failed to be ranked the top, but which, was replaced by financial and working conditions. This implies to the human resource policy makers that the ethnic Chinese, regardless of boomers or X-ers, viewed the degree of importance to be different from the ranking of importance of work values categories. The ethnic Chinese may agree that autonomy and use of skills, which are intrinsic in nature, is vital as a work value category for the creation of a motivated workforce, but financial and working conditions, which are more extrinsic in nature, would be even more essential for the making of a productive and effective labour force.

In conclusion, the work values of Baby-boomers and Generation X of the working ethnic Chinese in Malaysia may not be significantly different but findings have sufficient evidence that the X-ers are more money-oriented than the boomers though both generations may agree that work values categories which are more extrinsic and materialistic in nature are more important to them.

## References

- Abu-Saad, I., & Isralowitz, R.E. (1997). Gender as a determinant of work values among university students in Israel. *Journal of Social Psychology, 137* (6), 749-763.
- Chen, J.S., Chu, H.L., Kay., Wu, W.C. (2000). Tourism students' perceptions of work values: a case of Taiwanese universities. *Journal Contemporary Hospitality Management, 12/6*, 360-365.
- Dose, J. (1997). Work values: an integrative framework and illustrative application to organizational socialization. *Journal of Occupational and Organizational Psychology, 70*, 219-241.
- Elizur, D. (1996). Work values and commitment. *International Journal of Manpower, 17*(3), 25-30.
- Furnham, A., Petrides, K.V., Tsaousis, I., Pappas, K., & Garrod, D. (2005). A cross-cultural investigation into the relationships between personality traits and work values. *The Journal of Psychology, 139*(1), 5-32.
- George, J., & Jones, G. (1997). Experiencing work: Values, attitudes, and moods. *Human Relations, 50*, 393-416.
- Jurkiewicz, C. E., & Brown, R.G. (1998). GenXers vs. boomers vs. matures: generational comparison of public employee motivation. *Review of Public Personnel Administration, 18*, 18-37.
- Kotler, P., & Keller, K.L. (2006). *Marketing Management 12 ed.* Pearson International Edition, p236.
- Kupperschmidt, B.R. (2000). Multigeneration employees: strategies for effective management. *The Health Care Manager, 19*, 65-76.
- Lebo, R.B., Harrington, T.F., & Robert, T. (1995). Work values similarities among students from six countries. *The Career Development Quarterly, 43*(4), 350.

Loscocco, K.A., & Kalleberg, A.L. (1988). Age and meaning of work in the United States and Japan. *Social Forces*, 67:2, 337-356.

Loughlin, C., & Barling, J. (2001). Young workers' work values, attitudes, and behaviours. *Journal of Occupational and Organizational Psychology*, 74, 543-558.

Mantech. (1983). *Work Values Questionnaire*. Auckland, New Zealand: Author.

Parsons, C., Cable, D., & Wilkerson J. (1999). Assessment of applicant work values through interviews. *Journal of Occupational and Organizational Psychology*, 72, 561-566.

Selmer, J., & De Leon, C. (1996). Parent cultural control through organizational acculturation. *Journal of Organizational Behavior*, 17, 557-572.

Smola, K.W., & Sutton, C.D. (2002). Generational differences: revisiting generational work values for the new millennium. *Journal of Organizational Behavior*, 23, 363-382.

Tuch, S.A., & Martin, J.K. (1991). Race in the workplace: black/white differences in the sources of job satisfaction. *Sociological Quarterly*, 32, 103-116.

Wong, C.K., Simon., & Chung, K.H., Manson. (2003). Work values of Chinese food service managers. *International Journal Contemporary Hospitality Management*, 15/2, 66-75.

Table 1. Respondents' Years in Workforce

<b>Years in Workforce</b>	<b>Percentage of Respondents (%)</b>
Less than 1 year	10
Between 1 to 5 years	26
Between 5 to 10 years	29
Between 10 to 20 years	22
More than 20 years	13
Total	100

Table 2. Respondents' Years of Service in Existing Work Organization

<b>Years of Service in Existing Work Organization</b>	<b>Percentage of Respondents (%)</b>
Less than 1 year	40
Between 1 to 5 years	36
Between 5 to 10 years	11
10 years and above	13
Total	100

Table 3. Respondents' Educational Qualification

<b>Educational Qualification</b>	<b>Percentage of Respondents (%)</b>
No formal education	1
Primary	2
Secondary	6
Certificates / Diplomas / Professional qualifications	23
Bachelor's / Master's / Doctorate Degree	68
Total	100

Table 4. Mean Scores for the Degree of Importance on Each Work Value Category

<b>Work Value Category</b>	<b>Baby-boomers</b>	<b>Generation X</b>
Working Relationships	4.93	5.02
Influence and Advancement	4.66	4.75
Financial and Working Conditions	4.91	5.02
Autonomy and Use of Skills	4.97	5.09

Table 5. Mean Scores for the Ranking of Importance on Each Work Value Category

<b>Work Value Category</b>	<b>Baby-boomers</b>	<b>Generation X</b>
Working Relationships	2.25	2.50
Influence and Advancement	3.21	2.87
Financial and Working Conditions	1.95	1.92
Autonomy and Use of Skills	2.59	2.70



## A Review Research of Errors Caused in Auditing Process

Shiliang Xia

Department of Economics and Management, Huaiyin Teachers College, Huaian 223300, China

E-mail: xiashiliang2006@126.com

### Abstract

There is a significant growth of behavior economics in the last decade. The goal of the behavior research is aimed at the deviations from rationality in order to improve the predictive power of economic models. In this paper, attached to the specific auditing process, I want to classify the neglecting relevant information due to judgment by representative which causes the bias, or the error of auditing results.

**Keywords:** Auditing Process, Auditors, Information Neglect

### 1. Background

As we know that bias research, or the error research in auditing has been conducted with both psychology –and economics-based experiments. While both approaches examine similar phenomena, they stand rather separately apart from one another. Recommendations for their synthesis have regularly been made in the past, the number of co-citations between them remained very low. Over the time the focus of psychology –based research has shifted. The first wave of research replicated the experiments of Tversky and Kahneman (1974) examining the anchoring bias and the representative ness heuristic in the audit context. The second wave developed with the introduction of the belief-adjustment model by Hogarth and Einhorn (1992). The model allowed for a more precise testing of sequential decision making which made it easier to examine order effects or confirmatory processes. In a third wave beginning at the end of the 1990s, bias research became more and more issued oriented. Biases that affected auditor liability, like the hindsight bias, and heuristics that affected auditor independence, like the acceptability heuristic were investigated.

### 2. Definition

During the auditing process there exist some errors caused by the neglecting relevant information due to judgment by repetitiveness which means that the decision-maker focus on highly representative and salient factors, while neglecting other potential more important considerations. For the evaluation of random drawn samples of data, this means that people focus too much on the distribution indicated by the sample, while neglecting the size of the sample. Similarly people tend to believe that very small sample sizes are highly representative of the underlying population integrated this finding into an economic model.

### 3. Categorization

#### 3.1 Sample size neglect

As auditors very often use non-random methods for sampling and non-methods for evaluating these samples, the danger might exist that auditors overestimate the power of small samples due to the representative ness heuristic. While a study by Kachelmeier and Messier(1990)found that auditors are prone to this error, and that they choose to draw too small sizes when compared to size demand by audit standards, a later study did not find this effect as a new version of the audit standards required smaller sample sizes.

#### 3.2 Base rate neglect

Decision-makers often tend to focus only on the direct information context of evidence, without considering it in light of prior knowledge of base rates. Explanations for this are that base rates are not perceived to be salient features of the decision, and that people have difficulties to understand the concepts of base rates. However, depending on the context, base rate are not always neglected. Auditors seems to be no exceptions, they also neglect base rates in auditing tasks. Joyce and Biddles (1981) argued that base rates are less often neglected for similar tasks, but Holt (1987) showed that the apparent decrease in the neglect of base rates is not due to experience effects, but to the wording used in the task description. The findings of Tuttle (1996) suggest that experience might improve the choice of the relevant sub-sample, which would improve the decision quality of auditors even when they are prone to the base rate neglect. The context dependency of the base rate neglect was also demonstrated by Kida (1984), who showed that auditors use more often base rates when they are presented in a way that highlights the causal link between the base rate and the relevant population.

### 3.3 Source credibility neglect

In judgment solely based on the representativeness of the message, the inherent credibility of the source would be neglected. While Joyce and Biddle (1981) found that auditors neglect the credibility of the source, later research came to the conclusion that auditors consider various forms of source reliability in their judgment, for example, source competence, and source integrity. Auditors consider source reliability not only in their judgment, but also directed their information search towards more reliable sources. As in Bamber (1983), auditors sometimes even excessively discounted evidence from unreliable sources.

Auditors showed a slight focus on negative evidence. For example, changes in source reliability are given special consideration when that change was negative, or when the source content is associated with negative consequences. The general finding that auditors consider source reliability is also corroborated by research examining the effects of the internal control strength on audit planning. One reason might be that source credibility is a salient feature in auditing.

### 3.4 Conjunction fallacy

Basic statistical theory tells us that probability of a certain event X must be higher than the probability that X happens in conjunction with another event Y. However when the combination of two conjunctive events is highly representative for a certain scenario, people tend to estimate the likelihood of this combination higher than the likelihood of both single event. Equivalently, the likelihood of a single representative event is judged to be higher than a disjunctive combination of this event with a less representative event. The conjunction fallacy is moderated when probabilities are presented in the form of frequencies.

In auditing an early study by Joyce and Biddle (1981) indicates that the experience of auditors eliminates the conjunction fallacy. However, this result was probably driven by a lack of representativeness in the conjunction event described. Further study showed that experience might even enhance the conjunction fallacy as it goes along with a better sense of the representativeness of events. For example, auditors were prone to the conjunction fallacy when estimating the likelihood of possible error combinations that were highly representative due to the principle of double bookkeeping. Similarly, they overestimate the likelihood of combinations of plausible error causes for extreme changes in a key financial indicator, especially when one of the plausible errors triggered audit implication. Requiring auditors to state the likelihoods of the conjunctive event as well as the likelihoods of the single events helps them to reduce the bias in their judgment due to the conjunction fallacy.

### References

- Tversky and Kahneman. (1974). Belief in the Law of Small Numbers. *Psychological Bulletin* 76(2):105-110.
- Hogarth and Einhorn. (1992). The Belief Adjustment Model. *Cognitive Psychology* 24(1):1-55.
- Kachelmeier and Messier. (1990). An Investigation of the Influence a non-statistical Decision Aid on Auditors Sample Size. *Accounting Review* (1):209-226.
- Joyce and Biddles. (1981). Anchoring and Adjustment in Probabilistic Inference in Auditing, *Journal of Accounting Research* 19(1):120-145.
- Tuttle. (1996). Using Base Rate Frequency Perceptions to Diagnose Financial Statement Error Causes, *Auditing* 15(1):104-121.
- Kida. (1984). The Effect of Casualty and Specificity on Data Use, *Journal of Accounting Research* 22 (1):145-152.
- Bamber. (1983). Expert Judgment in the Audit Team: a Source Reliability Approach, *Journal of Accounting Research* 21 (2):396-412.



## Self-Initiated Expatriates: An Interpretative Phenomenological Analysis of Professional Female Expatriates

Ceili Fitzgerald (Corresponding author)

Hillside Rostellan, Aghada Co. Cork, Ireland

Tel: 353-21-466-1031 E-mail: ceili\_fitzgerald@yahoo.com

Liza Howe-Walsh

University of Portsmouth

Business School

Richmond Building, Portland Street, Portsmouth PO1 3DE, UK

Tel: 44-2392 844051 E-mail: liza.howe-walsh@port.ac.uk

### Abstract

This study is an original piece of work that offers the opportunity to ascertain and comprehend the experiences of professional female self-initiated expatriates in the Cayman Islands, and presents a valuable insight into what is now an important dimension of international careers and the contexts within which they evolve. Analysis and interpretation of data was achieved through use of interpretative phenomenological analysis (IPA) a distinctive approach to conducting qualitative research that is concerned with understanding lived experiences. Findings suggest that several contributory factors exist in influencing the female expatriates' decision to expatriate and that they maintained positive perceptions of the effects their overseas experience would bring to their career prospects. Findings also suggest that while gender discrimination was not commonly experienced, discrimination because of their expatriate identity was.

**Keywords:** Female Expatriate, International Human Resources, Global Mobility, Career Development, Self-initiated expatriate

### 1. Introduction

The purpose of this present research project is to contribute to current knowledge about self-initiated female manager expatriates' motivators and experiences (Vance, 2005; Carr, Inkson & Thorn, 2005; Myers & Pringle, 2005; Inkson & Myers, 2003; Suutari & Brewster, 2000; Tharenou, 2003; Richardson, 2006; Tzeng, 2006; Linehan, 2001) and of international career perceptions of women (Bolino, 2007; Collings, Scullion & Morley, 2007; Dickmann & Harris, 2005; Richardson & Mallon, 2005; Arthur & Rousseau, 1996). The objective of this research project is to discover the lived experiences of professional female self-initiated expatriates in the Cayman Islands. It aims not to generalise the findings but rather to, gain an insight into career issues of women who have chosen to work in another country (Crowley-Henry & Weir, 2007). For the purposes of this study an expatriate is taken to mean "someone who left (their) homeland to live or work in another country, usually for a long period of time" (Vance, 2005, p. 375) this definition is more appropriate as it is more inclusive of what will be referred to as self-initiated expatriates (SIE) (Lee, 2005).

Over the years there has been an increase in scholarly research in the International Human Resources arena on international employees and expatriation. However, not only has the literature focus been dominated by expatriates who have been sent overseas by their employer, and is concerned for the most part, with matters from the organisational perspective (Caligiuri, 1997; Caligiuri & Stroh, 1995; Sims & Schraeder, 2005; Tan & Mahoney, 2006; Tarique, Schuler & Gong, 2007; Tharenou & Harvey, 2006; Waxin & Panaccio, 2005), it is also predominately based on male expatriates with women appearing in the literature mostly in the capacity of wife of an expatriate (Selmer & Leung, 2003a; Linehan & Scullion 2001; Fischlmayr, 2002). This is due to the fact that as Smith and Still (1996) cited in Linehan and Scullion (2001) point out "foreign assignments have long remained a male preserve". Nevertheless, in recent years an increasing amount of research is being focused on the progress of females in the labour market (Scott and Brown, 2006) and along with this present study is valuable for organizations that aim to achieve competitive advantage on the global front by focusing on development of global leaders (Caligiuri, 2006) in order to understand the complexities, variations and diversity of their source pool. Kollinger (2005) also makes the point that companies should be interested in taking measures to increase the number of female managers and expatriates and noticing female potential if they want to compete in the global competition for talent (p. 1257).

This study characterised by its primary research concern is exploratory in nature, and neither generated nor put forward any hypothesis (Metz & Tharenou, 2001; Shaffer, Harrison, Gregersen, Black & Ferzandi, 2006). Alternatively, a number of research questions were generated to guide and focus the research process (Stahl, Miller & Tung, 2002; Fenwick, 2004). The research questions were developed based on an extensive review of the literature and cover areas of self-initiated expatriation (Inkson, Pringle, Arthur & Barry, 1997; Sutari & Brewster, 2000; Tharenou, 2003; Vance, 2005), women expatriates (Adler, 1994; Linehan, Scullion & Walsh, 2001; Linehan & Scullion, 2001; Paik & Vance, 2002; Fischlmayr, 2002; Crowley-Henry & Weir, 2007), global careers and career development (Thomas, Lazarova & Inkson, 2005; Bolino, 2007; Tarique, Schuler & Gong, 2007; Vance, 2005) as well as literature on issues of discrimination (Richardson, 2006; Tzeng, 2006).

*Primary Research Concern: To explore the lived experiences of professional female self-initiated expatriates*

*RQ1: What influences female professionals to choose a self-initiated international work experience?*

*RQ2: How do the overseas work experiences of professional female self-initiated expatriates effect their perceptions of their future career and employability.*

*RQ3: Do self-initiated professional female expatriates experience discrimination while overseas?*

## **2. Literature Review**

It is a widely commented that the rapid pace of globalisation has led to increased global activity and global competition (Schuler & Tarique, 2007). This global phenomenon has ultimately emphasized the critical importance of international human resource management (IHRM) and its aim to enable the Multinational company (MNC) to be successful on a global front (Schuler & Tarique, 2007; Caligiuri, & Stroh, 1995) as well as the ever-rising importance of global assignments (Sparrow, 2007). The literature reveals that within the globalizing nature of our times, the very notion of an international assignment and international employee is changing and expanding, to one that looks beyond the concept of a traditional expatriate sent on assignment by their organisation, to a more diverse set of international employees (Capellen & Janssens, 2005). Collings, Scullion and Morely, (2007) call for a more strategic approach to be taken when it comes to staffing in the international context and they outline the new and old challenges of using traditional expatriates and highlight the many alternatives to using them. The more contemporary difficulties with using traditional expatriates can be seen with the emerging markets; requirements for expatriates such as visas and permits; Career issues (dual-career) as well as the impact that 9/11 has had on the international labour force (p 200).

Other areas of concern according to Collings et al (2007) are the limited participation of women in international management, repatriation issues and weak international talent management systems (p.200-202). The paradoxical nature of this is twofold; even though there is a shortage of international managers there is still a shortage of women in international management and these shortages exist despite the evidence in recent research that indicates that female managers are successful in their global assignments (Tung, 2004). Given that the success of women on global assignments has been highlighted, Janssens, Cappellen and Zanoni (2006) point out that there continues to be a lack of research in this area and argue that there should be more academic research conducted illustrating female success on a global front.

### *2.1 Women expatriates in the Literature*

Interest in women expatriates was initiated just over 20 years ago by Izraeli, Banai and Zeira, (1980). This was soon followed with two studies by Adler (1984a, 1984b) who sought to discredit myths about women and expatriation by assessing and illustrating the desires of women to have international careers. Since these academic contributions, barring research on the female spouse of an expatriate (Bikos, Ciftci, Guneri, Demir, Sumer, Danielson, De Vries & Bilgen, 2007), there has been a number of works done on women expatriates. These studies have included research on why there are so few women expatriates as international managers as well as barriers to their participation (Adler, 1994; Linehan, Scullion & Walsh, 2001; Linehan & Scullion, 2001; Paik & Vance, 2002; Fischlmayr, 2002), gender and personality differences between women and men (Guthrie, Ash & Stevens, 2003; Sinangil & Ones, 2003) as well as research considering the cross-cultural adjustment of female expatriates ( Selmer & Leung, 2003a; Caligiuri & Lazarova, 2002) and the success of female expatriates (Tung, 2004).

The literature revealed that addressing the issue of female expatriates and the disparity in numbers between male and female expatriates is due to Multinational Companies (MNCs) ignoring the need for flexibility in their Human Resources. Stroh and Caligiuri (1998) point out that managers of MNCs' have recognised the need to be adaptable with their products, finances, marketing and so on in order to compete effectively. However, it appears that, too often they overlook the most critical aspect of business that needs to be adaptable and that is their human resources. Linehan and Scullion (2001) draw attention to a number of studies that have found that very few women are given the opportunity to progress in their careers through international assignment. Research conducted by Linehan and Scullion (2001) on senior female expatriate managers across Europe, suggested that a main barrier for women in international assignment is actually getting to senior management position in their home country first. In slight contrast to Linehan and Scullion

(2001), Moore (2002) maintains that women are for the most part equally represented across the middle management pool from which expatriates are selected from. However, Kollinger (2005) convincingly argues that the reduced participation of women on the international front is a gender-related problem not an assignment related one and that in order to fill this gap, efforts need to be made to increase the numbers of female managers and employees in general (p. 1256-1257). Hartl (2004, p. 40) asserts that the lack of women expatriates is a reflection of a 'domestic glass ceiling' and not an indication of their ineffectiveness on international assignments or their willingness to relocate. These arguments bring to light the concept of the glass-ceiling and the struggles of women in breaking through it (Linehan & Scullion, 2001) However, there is a sense of hope in the optimistic assertion of Crowley-Henry & Weir (2007) that women and especially international women are in fact breaking through the glass ceiling at a gradual and evolving pace (p. 255).

Although the majority of those sent on international assignment are male there are a rising number of women entering the global management arena according to Selmer and Leung (2003a). The figure is placed at 13 per cent by Moore (2002) with contemporary statistics showing discrepancies in the percentage of women on expatriate assignment. The 2005 GMAC global relocation survey report places the figure at 23% and the 2005 PricewaterhouseCoopers key trends report the figure to be at around 10% and to be stable with little changes in the number of female expatriates over the last 10 years. It is useful to point out that the figure Moore (2002) puts forward is more in line with the statistics indicated by PWC (2005).

Other research illustrates a number of other reasons for the lack of female expatriate managers, such as closed and informal selection systems that may be male-biased (Selmer & Leung, 2003a) or limited networking opportunities of women in management (Linehan & Scullion, 2001), compared with men who have more co-workers in their networks giving them a professional advantage (Myers & Pringle, 2005), others such as Moore (2002) has focused on the perceptions that prevail in the corporate world about the capability and willingness of women to relocate for international assignment and the author challenges the perception that womens' inability to relocate is in most part due to issues associated with dual-career couples. The literature on female expatriation highlights that women are still a minority in international management and are still under-represented in the mostly white male, North American dominated research literature on expatriation (Napier & Taylor, 2002; Hartl, 2004; Linehan & Scullion, 2001).

#### 2.1.1 Global Careers

In the Boundaryless Career (1996) Arthur and Rousseau fused together past research on careers and career settings, their work was a call to academics and researchers to be more attuned to the realities of the labour market (Feldman & Ng, 2007). The rise in academic research on expatriation and repatriation (Paik, Segaud & Malinowski, 2002; Lazarova & Cerdin, 2007) issues are indicative of the changes in the realities of the labour market today and point towards the realization of international organisations of the necessity to formulate global strategies, in order to maximise their use of talented human resources (Black & Gregersen, 1999; Selmer & Leung, 2003 a). The concept of global careers is a relatively recent concept to gain academic interest (Thomas et al, 2005) and scholars will agree that international organisations today, as they compete in a more globally connected market place (Tarique et al, 2006;), place significant importance on the global competencies of job candidates (Vance, 2005; Yan, Zhu & Hall, 2002). However, research also suggests that despite the perceived importance organisations do an insufficient job in developing these competencies in their employees (Black, Morrison & Gregersen cited in Vance, 2005, p.374) and that corporate expatriation practices are still far from successful, with failures brought about by various elements such as culture shock, adjustment problems, and the high financial costs involved (Yan et al, 2002). Moreover, the expatriate assignment literature highlights the career de-stabilising tendencies of the international assignment because of the high turnover rates on repatriation (Paik et al, 2002; Lazarova & Cerdin, 2006; Carr et al, 2005; GMAC, 2005; Yan et al, 2002). Research investigating ways to develop global leaders has been an area of uncurtailed interest amongst academics in recent times (Caligiuri, 2006). It is suggested by Caligiuri (2006) that there are certain knowledge, skills, abilities and other personality characteristics (KSAOs) necessary for competent global leaders. These KSAOs are listed in table 1. Caligiuri (2006) suggests that depending on the KSAOs of an individual, combined with the right developmental opportunities will produce leaders that can effectively and competently engage in global leadership.

#### 2.1.2 The Self-Initiated Foreign Work Experience

Alternative forms of the traditional expatriate assignment have been discussed in the literature and the term 'self-initiated foreign work experience' (SFE) has been coined (Suutari & Brewster, 2000) in contrast to 'overseas experience' (OE) (Inkson, Pringle, Arthur & Barry, 1997) and the difference between the two outlined in Suutari and Brewster, (2000). The OE is described as a phenomenon of adventurous, youths seeking geographical mobility teamed with self-learning and facilitated through self-support (Inkson et al, 1997), described by Inkson and Myers, (2003) as a "backpacker culture" (p.170) that is evident amongst young people today, and is particularly persistent in countries such as Australia and New Zealand where it is seen as a 'social norm' (Inkson & Myers, 2003, p.171). This social norm or backpacker culture reflects the wider cultural preferences to self-initiated work experiences that may be more

predominant in some cultures over others. For example, Tharenou (2003, p.490) indicates that more and more young Australian managers or professionals are also choosing to seek employment overseas. While this group may not fall into what is described as OE it does however, share characteristics of persons undergoing an SFE, which refers to individuals who travel abroad to find their own work and which is, according to Suutari and Brewster (2000) a widespread phenomenon. Unlike traditional expatriates, SFEs initiative and motivation to leave comes from themselves, and their individual goals are not organizationally defined such as is the case with traditional expatriates. SFEs are self funding and according to Suutari and Brewster (2000) are likely to represent different career stages and structures than traditional expatriates, with SFE representing early career and less professional career stages than traditional expatriates who are in more developed careers and are more likely to be in higher –level positions (p. 419).

Recent focus on the SFE in the literature, includes consideration of experiences and career development perceptions of academics (Richardson & Mallon, 2005); individual agency and motivations for working abroad (Richardson & Mallon, 2005; Vance, 2005); underemployment amongst SFEs (Lee, 2005); receptivity to working abroad (Tharenou, 2003); and the influences of gender (Myers & Pringle, 2005; Richardson, 2006). Despite this recent academic interest in studying and understanding SFEs', and the increasing trend towards career self-management (Vance, 2005), it remains evident that not much is really known about self-initiated expatriates (Richardson, 2006, p.469; Suutari & Brewster, 2000).

Another important reflection for any facet of expatriation is the issue of adjustment. Selmer & Lam (2004, p. 431) discuss the importance of cultural-adjustment as a precursor for success on an international assignment and the need for cross-cultural training of expatriate assignees. Although Waxin & Panaccio (2005) found that cross-cultural training facilitates expatriate adjustment, Selmer & Lam (2004) indicate that much of this training may be insufficient and suggests that organisations could focus on candidates who already have a global mindset. One alternative available to MNCs are third-culture kids (TCKs) (Selmer & Lam, 2004, p.431). These TCKs are children of expatriates who are already of a global mindset more culturally aware and adaptable, and the implication is they would incur less cost to the organisation for pre-assignment training. While cultural dissimilarity will increase adjustment difficulties of expatriates (Selmer, Chiu & Shenkar, 2007) it is the adaptability of this group of people that Selmer & Lam (2004) draw attention to. This idea of adaptability is also advocated by Fugate, Kinicki & Ashforth (2004) who highlight the need for workers today to be "highly adaptable" (p.15) because of the nature of the dynamic environment in which we live (Fugate et al, 2004). What Selmer & Lam (2004) refer to as "ready made" expatriate candidates (p. 431) could also be extended to anyone who has prior experience living in a different cultural context than ones own, such as those who have chosen to self-expatriate and who have experienced working abroad. Instead of using traditional training schemes (Caligiuri, 2006) the literature indicates that the kinds of knowledge and competencies that MNCs require of their global leaders could be developed in other ways, instead of training or through company sponsored overseas assignments (Thomas et al, 2005). It is suggested that that this is why there has been greater attention paid to understanding the outcomes for and the characteristics of those who undertake SFE (Thomas et al, 2005). Given that according to recent survey reports, reducing the cost of expatriate assignments is still a major issue for MNCs, (PricewaterhouseCoopers, 2005; GMAC, 2005) The assumption here is that, there is a valuable source of international labour within SFEs that MNCs should discover and utilize more effectively, as part of their internationalization strategies as well as in reducing costs (Suutari & Brewster, pp. 434-435). Lee (2005) echoes this concern, and points out that bringing in self-initiated expatriates (SIEs) who are highly qualified and skilled are crucial to business success, and international organisations should do more to develop appropriate strategies (p.173).

In relation to self-initiated female expatriates, the present literature revealed one academic article dealing specifically with the phenomenon and the influences of gender on it (Myers & Pringle, 2005). The study uses the term self-initiated foreign experiences (SFE) and provides a comparison between female and male experiences before, during and post SFE. It concluded that although relationships did not cause more constraints on them, women were more likely to see their SFE as a number of "experiences intertwined with relationships" (p.430), and that the desire for stability meant that women stayed overseas for longer accumulating more work experience.

### 2.1.3 Protean and Boundaryless Careers

Vance (2005,p.374) implies that individuals should not depend on organisations "but should be active agents in their own career development and assert themselves in developing and utilizing their global competencies" (p.374), this assertion denotes the very concept of the SIE, and in turn directs attention to the concept of the 'protean career', which is a concept that refers to the shift from organisation-based careers to one that is managed more by the individual (Yan et al, 2002; Hall & Moss, 1998) and is concerned with 'morphing' and 'adapting' professional roles over time (Crowley-Henry & Weir, 2007). Protean career theory focuses on the individual person and the role she plays in transforming her own career, leading to internal (psychological) success (Hall & Moss, 1998). This concept of the protean career positions the idea of SFE in a more contextual grounding and is therefore significant and necessary for discussion.

A number of academic articles refer to both the protean career (Crowley-Henry & Weir, 2007) as well as the boundaryless career (Sullivan & Arthur, 2006; Stahl et al, 2002) and those that consider the interplay and comparison of the concepts together (Briscoe, Hall & Frautschy DeMuth, 2006; Inkson, 2006; Briscoe & Hall, 2006) to illustrate the evolution of global careers and the changing nature of career development. Inkson (2006) looks at the two metaphors and the meanings that they elicit and argues that there is too much room for inaccuracy and variation in interpreting the two terms. The protean career according to Inkson (2006) is indicative of a personal trait that characterises a psychological orientation to one's career and will inevitably give rise to certain behaviours. Inkson (2006) then describes the boundaryless career as the observable behaviour of an internal lens from which to view the world. These definitions emphasize, as Inkson (2006) suggests, the close parallels between the two concepts (p. 57-58). The terms "self directed career" as opposed to protean career and "boundary-crossing career" instead of boundaryless career are put forward by Inkson (2006) as alternatives. The argument that the two terms need to be re-conceptualised is reiterated by Briscoe and Hall, (2006) who also point out the possibility of overlap with the concepts. Briscoe and Hall (2006) consider the boundaryless career in broad terms along "dimensions of physical and/or psychological mobility" (p.8). It is argued that it is not enough to consider the boundaryless career as physical mobility and the protean career as psychological but rather there needs to be an applicable concept that incorporates both and that sufficiently addresses both aspects of an individual's career (Sullivan & Arthur, 2006). Sullivan and Arthur, (2006, p. 22) acknowledge the confusion and difficulties of capturing the various types of boundaryless mobility and devised a model (See figure 1) representing the dual dimensions of the concept, to aid clarification. The model is based on the fundamental premise that a boundaryless career involves both physical and or psychological mobility. The authors provide a detailed analysis of the four "pure types" of careers represented by each of the 4 quadrants (p.23-24). From the illustrated quadrants it could be argued that those opting for an SFE are represented by the characteristics found in Quadrant four (High physical and psychological mobility). Arguably, the physical mobility evidenced from their international relocation would not only be accompanied by, but also initiated by, their changing internal focus on transforming their own careers (psychological).

#### 2.1.4 Self-Initiated Expatriates (SIEs)

International work experience appears to be crucial for developing the necessary competencies for success in our global environment (Vance, 2005; Hartl, 2004; Richardson & Mallon, 2005) and the diverse group of people choosing to travel abroad to find work is increasing and represents an alternative model of International careers to the one dominated by corporate expatriation (Myers & Pringle, 2005). This group of individuals travelling abroad to find their own work are identified as SIEs if they have been hired "as an individual on a contractual basis and not transferred overseas by a parent organisation" (Lee, 2005, p. 173). Suutari and Brewster (2000) identified different types of SIEs other than the flood of youths heading abroad for work and travel. Six sub-groups are defined by Suutari and Brewster (2000) in their study of graduate engineers from Finland; young opportunists, localised professionals, job seekers, international professionals, officials and dual-career couples.

On one hand it is argued that this group of SIEs' form a larger and stronger segment of the global labour market (Inkson & Myers, 2003; Myers & Pringle, 2005), yet on the other hand there is little known about them and so an important gap remains to be filled (Suutari & Brewster, 2000). Carr et al, (2005) look at the flow of migrants who expatriate themselves independent of an employer, and maintain that this group of people are a more influential group on global careers than their organisation assigned expatriate counterparts. Similarly Baruch, Budhwar and Khatri (2007), also provide academic work on the tendency for migrant students to remain abroad after their studies are complete. However, the 'talent flow' that Carr et al, (2005) refer to and the phenomenon of the 'brain drain' (Baruch et al, 2007) are more indicative of groups with immigrant status rather than those with expatriate status who intend to return to their home country sometime in the future (Richardson & Mallon, 2005).

While the decision to choose expatriation is commonly influenced by the unexpected or arising opportunity, Richardson and Mallon, (2005) found that the most influential of all decisions for individuals to choose expatriation is the search for adventure and travel. Their findings indicate that both males and females, with or without children, older or younger, were all equally likely to draw on adventure as the dominant influence on their decision to expatriate. However, Tharenou (2003, p.510) asserts that family interest and having partners, for both male and females act as a barrier to the development of interest in overseas work for young and older Australian managers. Other popular reasons found by Richardson and Mallon (2005), were life change, family reasons and to enhance career opportunities, with financial explanations and career mobility as subsidiary reasons (Richardson & Mallon, 2005). Myers and Pringle, (2005) found that social attraction; escape and exploration were the main reasons for choosing to expatriate with women going mostly for the first two: social attraction and escape. Further research by Richardson (2006) examines and seeks to explain the role of family involvement in the decision to choose self-directed expatriation and in doing so, illustrates the "centrality of personal relationships in this particular form of career decision" (p.479). Interestingly, research from a study of a small sub-group of four women following international careers indicates that family and personal life and not their careers are at the top of their priority list (Crowley-Henry & Weir, 2007, p. 255).

In addition to the above studies, an attempt was made by Carr et al, (2005), in their study on the psychology of migration, to find answers to why people choose to internationalise their career (p.389). They suggest that there are economic, cultural, family, career and a mixture of these that operate as ‘push’ and ‘pull’ factors in the decision to go abroad and or to return home (Carr et al, 2005). Tharenou (2003) discusses the receptivity of young Australians to relocate and work abroad, and maintains that receptivity to foreign work experiences are due to a combination of personal agency, perceived barriers as well as available opportunities (p.509). Sullivan and Arthur, (2006) suggest that women may have less freedom because of family responsibilities to take on physical mobility while Myers and Pringle (2005) report that women did not face any specific constraints because of relationships and that the relationships played a similar role in decision-making for both men and women (p.425).

In a similar vein, Vance (2005) who takes an in-depth look at ‘pre-international’ career path strategies for gaining international business experience focuses on the internal drivers of expatriate career development. Vance (2005) suggests that there may be different approaches that women follow for gaining international career experience and that more women than men appear to take the self-expatriation track. The indication that there are a higher number of self-expatriated women is corroborated by Suutari and Brewster (2000) who found that there are a much higher percentage of women who seek work abroad on their own initiative (p. 422). This is a point which is worth considering and one that begs the question whether there is a relationship between the low percentages of female traditional expatriates on assignment with the high number of women choosing SFEs? These ponderings as well as the dearth of information on self-initiated expatriates in general (Richardson, 2006; Suutari & Brewster, 2000) have led to the first research question:

*RQ1: What influences female managers to choose a self-initiated international work experience?*

#### 2.1.4.1 Career Development and SIEs

The rise in expatriate literature while beneficial has been traditionally attuned to issues of selection (Mol, Born, Willemsen & Van Der Molen, 2005; Tarique et al, 2006; Tharenou & Harvey, 2006; Caligiuri, 2000) and especially on the adjustment issues of expatriates, as well as on areas of cross-cultural training and other training requirements needed (Selmer, et al, 2007; Waxin & Panaccio, 2005; Pires, Stanton & Ostefeld, 2006). While there seems to be a dearth of information on the relationship between career development and the foreign assignment (Riusala & Suutari, 2000), it is suggested in the literature that it is probable that men and women will act out their careers in different ways due to gender differences perceived socially and psychologically (Sullivan & Arthur, 2006; Fischlmyr, 2002; Myers & Pringle, 2005). It is argued by Yan et al, (2002), that in the long term the most important concern for those on an expatriate assignment regardless of gender is career development and their expectations on repatriation for building their career shapes their psychological contract with their MNC (p.377). In the case of SFEs Myers and Pringle (2005) support the view that SFE provides the possibilities for accelerated development and individual career enhancement (p.430). They speculate that the desire for security and stability that drives women to stay overseas longer actually affords them greater expatriate experience and “a gateway into global careers” (p.430), however, their research found that SFEs provided more personal development than it did career development (p.427). In addition it has been identified that, family life was found to have great influence on womens’ expatriate careers in terms of delaying, terminating or interrupting it (Tzeng, 2006, p. 390). Richardson and Mallon, (2005) conducted a study based on self-directed expatriate academics and found that a large number of participants were conscious of the fact that the marketability and positive recognition of their work experience on return home, would depend on the country they were in and the work that they did. The same study also showed that competencies and knowledge acquired must be appropriate to the required competencies for their job back home.

The concept of employability put forward by Fugate et al (2004) is considered here. The concept of employability is viewed as a psycho-social construct that requires certain individual characteristics to exist in order to adapt and acquire the required KSAOs to “enhance the individual-work interface” (p.15). To be employable requires pro-activeness to ensure improvement and ability to adapt to changing times and work environments (Fugate et al, 2004). Rothwell and Arnold (2007) maintain that the notion of employability is significant because in times where long-term employment in the same company is not guaranteed, it is critical to remain attractive in the labour market (p.24). In their study on self-perceived employability of Human Resources professionals, Rothwell and Arnold (2007), distinguish between two distinct yet correlated terms; self-perceived employability and subjective career success. Self-perceived employability refers to an individual’s capacity to move to the top of the labour market in the future, whereas subjective career success refers to a current reflection and evaluation of past experiences (p. 26). A quick scan through the literature on expatriate career success revealed that most expatriates hold the view that an international work experience will enhance their career on return leading to greater career success (Bolino, 2007, Stahl et al, 2002), therefore enhancing their employability (future state) (Rothwell & Arnold, 2007). Although, this literature refers to the traditional expatriate it is interesting to consider the perceived career implications that SIE hold, in order to better understand the possible implications and outcomes of an SFE. This leads to the second research question:

*RQ2: How do the overseas work experiences of self-initiated professional female expatriates effect their perceptions of their career development and employability.*

### 2.1.5 Discrimination

Scott and Brown, (2006) indicate that recent research suggests that a considerable amount of bias prevails against women, quite commonly due to the ‘communal and expressive’ stereotype of the female as opposed to the ‘aggressive and dominant’ stereotype of males which is normally associated with the leader prototype. The authors conclude that because of this, bias forms against women because they are not perceived to be a strong fit for leadership positions (p.232). Kollinger (2005) substantiates the argument suggesting that gender inequality and discrimination in the workforce against women exists and is reflected in the reasons why there are so few female expatriate managers. It is accepted that although there has been improvements in the status of women at work there is still a lot of gender discrimination that prevails (Tzeng, 2006). In the study of how female expatriates in MNCs confront the issues of gender and discrimination, Tzeng (2006) concluded that gender discrimination towards women living abroad exists particularly from males of the same ethnic background and the women reported that discrimination was still an issue with their male superiors. The research also found that men are less willing to support their wives foreign assignments than women have traditionally been in the past in supporting their husbands (pp.389-390). The unwillingness of husbands to support their wives could be linked to the lack of support that companies actually give to support male expatriate spouses (Selmer & Leung, 2003b). Again, this study reflects the reality of traditional expatriates, which in consequence led to the third and final research question:

*RQ3: Do self-initiated professional female expatriates experience discrimination while overseas?*

## 2. Methodology

The aim of this study is to learn about the professional women who live and work abroad as opposed to building or testing theory (Napier & Taylor, 2002). In attempting to better understand what influences self-initiated female expatriates to take on international work experiences, how their experiences effects the nature of their career concept and the extent to any issues of discrimination they may face, the researcher interviewed 10 self-initiated expatriate female managers currently living and working in the Cayman Islands. Due to a shortage of literature in this area an exploratory approach was considered most appropriate (Suutari & Brewster, 2000).

### 2.1 The Location

The Cayman Islands is an overseas territory of the United Kingdom and is comprised of three islands, a total of 102sq miles combined. As one of the top five financial centres in the world, the primary industries in Cayman are financial services, tourism, and real estate sales and development (About Cayman, n.d). The 2005 Population and Vital Statistics document shows the population of Cayman to be at 52,465 in 2005 a 44.4 estimated rate of increase from the previous year. 31,787 of the total are Caymanian and 20,679 non-Caymanian (expatriates) which represents 39% of the total population. The 2006 Labour Force Survey shows that 43.5% of the total employed expatriate population are female with the figure for their employed male counterparts at 55%. These statistics illustrate a unique picture where a large number of expatriates live at almost equal numbers to locals on a very small mass of land. The number of female expatriates in particular, that are resident and employed on the island, gave the research a potentially large population from which to obtain a sample.

The location was chosen out of convenience and the researchers’ personal knowledge of the island and its high self-initiated expatriate population. While the Cayman Islands is a micro-state and represents a relatively unexplored area of research, (Mehmet & Tahiroglu, 2002), the islands smallness, in both area and population, does not reflect a constraint on its economic status (Mehmet & Tahiroglu, 2002) nor on its popularity as a location for SIEs.

### 2.2 Research Design

In adherence to the research philosophy and theoretical framework, the design of this research project will be qualitative (Dickmann & Harris, 2005; Richardson, 2006) rather than quantitative in nature (Kollinger, 2007; Briscoe, Hall, Frautschy & DeMuth, 2006). Studies of this sort may have been enriched if conducted as a longitudinal inquiry (Bikos et al, 2007), however, neither time, circumstance nor financial resources allowed for a longitudinal approach.

The preferred way to obtain suitable data for in a phenomenological study that will make use of interpretative phenomenological analysis (IPA) is by conducting semi-structured in-depth interviews (Chapman & Smith, 2002, p.127), with the aim of producing rich and meaningful data about a small number of people (Patton, 2002; Silverman, 2006; Linehan & Scullion, 2001; Vance, 2005; Richardson & Mallon, 2005; Myers & Pringle, 2005; Inkson & Myers, 2003; Fischlmayr, 2002).

#### 2.2.1 The sample

Onwuegbuzie and Leech (2007) define a sample design as “representing the framework within which the sampling occurs, comprising the number and types of sampling schemes as well as the sample size (p. 239). This study reflects a

qualitative exploration of self-initiated female manager expatriates who represent a sub-group of all self-initiated expatriate managers in the Cayman Islands. The sample design used for this research project involves the selection of a small sample through a combination of purposeful sampling strategies and is explained in detail below which conforms to a phenomenological approach.

It is maintained by Smith and Osborn (2008, p.55) that small samples sizes are commonly used when taking an IPA approach, where depth rather than breadth is achieved and where conducting a meticulous case-by case analysis is quite time consuming. With this in mind, it is important to point out that for the purposes of this study and the resources available to the researcher; the sample size included a total of 10 women. Once on the island and the process of face to face interviewing was underway, four women from the initial sample backed out of taking part due to changes in their circumstances. This type of occurrence in a research project is not uncommon given the lapse of time between initial contact and timing of the interviews as was also noted by (Tzeng, 2006, p. 381). In the end a sample size with verbatim interview transcripts of six women were obtained and used for the IPA. The final sample consisted of six female professional expatriates representing six industry sectors; retail, public sector, telecommunications, recruitment, utilities and legal services. They represent four countries, the UK, New Zealand, and the Philippines. All women had been on the island as expatriates for one or more years at the time of the interviews and occupied positions across a range of job titles; HR manager, Government Director, Manager, Vice President of finance, Vice President, Internal Audit Manager. Three of the six women had attained undergraduate education; one had attained undergraduate as well as professional qualifications, and two attained post-graduate level. Two of the participants fell into the 40-49 age-group, three into the 30-39 age-group, and one into the 20-29 age-group. Two of the sample were married at the time of interviewing and the others were unmarried with one having a partner who remained in the UK. None of the participants had children and only two had been on previous international work experiences in the past. A listing and demographic profile of the female expatriate sample used in this study is presented in table 2 (Crowley-Henry & Weir, 2007; Stahl and Caligiuri, 2005; Stahl et al, 2002; Lee, 2005; Tzeng, 2006; Vance, 2005; Richardson & Mallon, 2005).

#### 2.2.1.1 Sampling Strategy

The sampling strategy adopted in this study aimed to gain an insight into a particular population within a specific location. It was also important, given the resources available to the researcher, that there be a degree of assurance that the data gathered will be of direct relevance to the study being carried out (Anderson, 2004, p.162). Consequently, the sampling strategy selected was carried out through purposeful selection of individuals for participation.

The sample was gathered through a combination of sampling techniques that represent a non-probability, purposeful sampling strategy (Patton, 2002, pp.230-243) and does not claim to be representative of the total population of female manager expatriates (Bryman & Bell, 2007, p. 200; Saunders, Lewis and Thornhill, 2007, p.230). While, snowball sampling has proven successful in past research projects of a similar nature (Myers & Pringle, 2005; Inkson & Myers, 2003; Janssens, et al, 2006), it was deemed too time consuming and rife with the potential for bias as a method on its own. Therefore, a combined approach was adopted, using criterion and emergent sampling. A combination of the two techniques was used because of the assumption that locating and accessing professional female self-initiated expatriates would prove difficult, and having a number of techniques available would improve chances of finding a quality sample.

To qualify for inclusion the participants had to meet certain criteria. All participants had to be female and had to have chosen to expatriate to the Cayman Islands themselves as opposed to being sent on assignment by an international organisation. They had to be working professionals at the time of interview, must have been on island for 1 or more years and must have intentions to return to their home country or elsewhere sometime in the future. The latter criterion emphasises the participants' status as an expatriate rather than an immigrant (Richardson & Mallon, 2005, p. 412) or Caymanian permanent resident or status holder.

Request letters were sent directly to a number of human resource directors in various multinational companies on the island, for listings of potential participants. Silverman (2006, p.81) describes this type of research setting as 'private' characterised by the need to go through a 'gatekeeper' to gain access to the research sample. This method did not lead to any responses and so an alternative approach was taken. As asserted by various scholars, there can be a number of difficulties in trying to gain access to participants in international research and suggestions to overcome some of these difficulties include utilizing personal contacts (Hutchings, 2003; Richardson & Mallon 2005; Vance 2005) and the use of email for gaining initial direct access to potential participants as well as for potential post-interview follow up questions (Richardson, 2006). The use of personal contacts was extremely helpful and convenient in locating and gaining access to participants in the Cayman Islands. The Cayman Islands Society of Human Resource Professionals (CISHRP) were also contacted and voted in favour of assisting in the search for participants for this study. An initial response of 10 women who met the criteria and who were willing to take part initiated contact. Once contact was made, communication was facilitated through the use of email, through which preliminary telephone interviews and face to face interviews were arranged.

### 2.3 Data Collection

With the research objectives and design in mind; in-depth interviews were considered the most appropriate method for data collection, because it was regarded as an opportunity to build a positive relationship between researcher and interviewee in order to gather information that genuinely illustrated the unique stories of the individuals involved (Anderson, 2004, p. 149-151). Interviews were conducted initially via telephone from Ireland, from which preliminary demographic data was collected and a follow up face to face interview arranged in Cayman. The face to face interviews provided a more in-depth, information rich discussion and were conducted at the interviewees' place of work or at a neutral location in order to create a relaxed comfortable environment (Fischlmayer, 2002). The interviews were between 40 and 50 minutes in length and were conducted using a semi-structured interview guide, which allowed enough flexibility to allow participants to give their stories in their own way while ensuring a basic line of inquiry was followed throughout (Patton, 2002, p. 343-344; Richardson, 2006; Vance, 2005; Myers and Pringle, 2005; Inkson & Myers, 2003; Janssens et al, 2006; Hartl, 2004; Linehan, 2001). Interviews were recorded via digital recorder which allowed for the researcher to concentrate on asking questions and listening in order to build a relationship defined by a good rapport and trust with the interviewee (Anderson, 2004, p.151-152). The interviews were then downloaded to PC, to ensure answers and discussions were accurately collected and could be listened to a number of times after the event. Each interview transcript was read over and summarised in order to identify any gaps that may have occurred during initial data collection and to include the personal thoughts, reflections and ideas of the researcher, by way of a summary sheet (Anderson, 2004, p.178). This process of summarising the interview also aided subsequent analysis of the data.

### 2.4 Analysis

IPA was used which included the development of a thematic network where a number of common themes were drawn out from the interview transcripts. The choice of IPA as the analytic method for this study was determined by the phenomenological focus and approach of the research and was deemed the most appropriate means of deepening understanding of the experiences and career perceptions within a specific sub-group of professional women. It is frequently pointed out throughout academic texts on Qualitative analysis that there is no 'one' right way to analyse or interpret data and there is no single approach in qualitative analysis that is widely accepted (Neuman, 2006, p.457). In agreement with this, Smith and Osborn (2008, p.67) reiterate that qualitative analysis is a 'personal process' and as such the methods used here reflect the personal style of the researcher while following general guidelines advocated by Smith & Osborn (2008).

#### 2.4.1 Interpretative Phenomenological Analysis

An IPA analysis was specifically created for investigating how people make sense of their lived experiences (Millward, 2005, p.319; Chapman & Smith, 2002, p.126). This approach was very much dependent on the participants' abilities to express their thoughts and experiences sufficiently so that an interpretation could then be made. In addition to this an IPA approach depends heavily on the ability of the researcher to 'reflect and analyse' (Brocki & Wearden, 2006, p.88). Thus, IPA involves what Smith & Osborn (2008, p.53) refer to as a 'two-stage interpretation process' where participants make sense of their world and the researchers role is to make sense of their participants sense making process. Inevitably then, this method is connected with hermeneutics and interpretation theory in addition to its phenomenological origins (Smith & Osborn, 2008, p.53). This approach involves a detailed case by case analysis of each individual transcript and begins with a thematic network but goes beyond this to produce a 'detailed interpretative analysis of themes' portrayed through a narrative account, illustrating a movement from description to interpretation (Brocki & Wearden, 2006, p.89). IPA was used in order to produce an interpretation of the phenomenon of study that is rooted in the data (Mann & Abraham, 2006, p.159).

IPA was conducted on verbatim transcripts in accordance with Smith and Osborn (2008) guidelines. Discerning meaning through a close and interpretative relationship with the data was the central purpose of the analysis. Each interview was looked at separately and the analysis began with an intensive and detailed reading and re-reading of the interview transcripts and notes so the researcher was familiarized with the contents. Any significant and potential meanings were noted down to the left of the transcripts. Once complete the transcripts were re-read this time to note any emerging themes, from the initial notes that capture the essence and importance of the text. Some transcripts were found to produce more themes than others reflecting the richness of those particular interviews (Smith & Osborn, 2008, p.70). A preliminary list of initial themes was created from which a second list connecting the themes was created, illustrating the clustering of these themes into a smaller number of higher-order ones that were checked against participants' phrases to ensure they supported the connections made. A table of themes was then developed by giving a name to the clusters of themes to form superordinate themes. The themes from the first transcript were used to help direct subsequent analysis of transcripts while ensuring that similarities and differences were highlighted between the accounts until a table of master themes was arrived at for the entire sample. Because the researchers interests lay in the subjective experiences of the participants, this method of data analysis and presentation was chosen in order to give voice to the women whose lives reflect this reality and whose concerns must remain at the fore (Grbich, 2007, p. 9; Auerbach & Silverstein, 2003, p. 32).

### 3. Findings

The findings presented below include verbatim examples from participant transcripts. Pseudonyms have been used to protect the identity of the women who took part. Four main themes were generated from the analysis of the participants' interviews. The first relates to choosing expatriation and the factors and processes involved, the second refers to the various challenges experienced by the women, the third theme deals with factors of discrimination that are experienced and managed by the participants and the final theme relates to the value of international experience as perceived by the six women taking part.

#### 3.1 Choosing Expatriation

What was most evident about the decision making process to take on an international experience, was that there were a number of combined factors culminating in a final decision to leave. The combination of reasons varied across the sample with a focus on career as a highly influential factor and one that was mentioned by all women. It was also evident that the location was of importance in terms of desiring a certain lifestyle, as well as the perceived effect the location could have on their careers. This is evident in the following excerpt from Chloe who illustrated this theme.

*Chloe: I was working in investment banking but in the legal department so this would have been my first opportunity to work for a law firm, that was good and working with hedge funds, structured finance. I wouldn't have just come for any job, the job was good as well and it (would) look good on my CV, so it was probably half and half actually (because) I wouldn't have come to any island. When I resigned my boss said if you just want to leave London, we've got a position in our Hong Kong office and I said no I don't want to go to Hong Kong, I want to go to Cayman, Cayman is the reason and its cause it is a big centre for hedge funds and its going to be great to get that experience and get that on the CV, yes Hong Kong is offshore but I thought (about) the lifestyle, it was the sun, sea the scuba diving it was all that combined with a good job and a good name, (names Law firm of employment) is a great name.*

Similarly Patricia acknowledges the dual influences on her decision to expatriate to the Cayman Islands.

*Patricia: I was looking for somewhere else where I could practice being an accountant and earn the same if not more than I was making in UK at the time, and Cayman, well the choices were Cayman, Bermuda um I preferred to go offshore cause I wanted somewhere warm as well... Basically just find a job that I'd enjoy really, I wasn't enjoying the commute in London, it was taking me an hour and half to get to London each day; my job in Sovereignty was interesting, I got to do a lot of client facing work, like on a first base client facing work, but I just thought like, I'm an accountant and there's got to be a better place to be an accountant in this world (laughs) and I've got to find it, and so I came here, so it was also for my career.*

For one of the participants the decision to opt for SFE stemmed from a desire for a new start where familiarity with the location also played an influential role in terms of choice of location. One woman expressed an innate desire to work abroad, another woman strongly indicated that timing was everything and it was the right time to do it. There were a number of contributing factors involved in all the cases with the most common cited as having no ties, a discontent with their current lifestyle and a desire for independence as well as taking on the challenge. For two of the respondents having past experience of working abroad and a history and love of travelling made the decision much easier to make. There were a number of other factors evolving from certain pro-active behaviours displayed by these women that also influenced their decisions to leave. The most common behaviours included networking, seeking job opportunities, and visiting the location prior to moving. Three of the participants visited the island, to follow up on leads from their own research, or through networking at home as well as to see whether they liked the island and the culture. Presented here is an excerpt from Brenda's transcript that illustrates the process she undertook with her husband before moving to the Cayman Islands.

*Brenda: ...what I did was, literally go onto a web site called careers in the sun or something along those lines, and I found a position with sports supply we basically conversed through emails and had spoken to them on the phone. Wasn't 100% sure that it was going to be the right position for me, but what we decided to do is to come across and meet the gentleman in question to see if it was going to be the right career move for us. So we came across on an unofficial working holiday to span it out. I met with the gentleman and it really wasn't something that I wanted to be involved with. It was a sales position, and, it really wasn't something that I'd had a lot of back ground in; but it appealed to my husband and so they offered him the position. And they saw my resume and saw that I was actually in HR, so he faxed my resume across to (a contact), so I had an interview with him the next day and was offered the position in HR, which is really bizarre.*

This process is highlighted once more by Chloe, who came to visit the island on holiday as well as to meet potential employers that had been arranged through a contact in the UK. During this visit, Chloe similarly describes how events unravelled quickly, leading to job offers.

*Chloe: I love to do scuba diving and I've never been here so I thought right I always wanted to come, so I'm going to do it. Go on holiday and whilst I'm there, I'd like to see the buildings and see what they do, and Nancy was the first*

person I met and got on really well with. I found it quite formal walking into this building with all the boardrooms, it wasn't quite what I was expecting in a Caribbean law firm and it was the most formal and the most structured, three person interview panel. I thought I was just coming in for a chat you know I wasn't really prepared for it but perhaps I was quite relaxed so it was quite nice. The day after I met Nancy, somebody resigned and she thought it was just fate, she called me in my hotel and said come back meet the directors cause we've got a job. And it was a bit scary really and (names another law firm) offered me a job as well and I thought well ...wow...how did that happen.

### 3.2 Facing Challenges

It was clear that whether one had visited the island, had prior international experience or was new to life as an expatriate, all had encountered and experienced a number of challenges that relate specifically to the location as well as their personal lives. The most pre-dominant and number one reported theme here was the experience of the working environment as a stressor in their lives. Four of the six women reported that work was a source of major frustration for them and more specifically the 'work ethic' that appears to dominate. Having lived and worked overseas for all of her working life, Courtney explains how difficult it has been to adapt to the prevailing work ethic at her company.

*Courtney: there have been frustrations work wise; the work environment is very different to big international organisations like what's based in London and such.. and so, I come from an environment and have had a lot of jobs before that have been delivery focused. I've had a lot of roles managing projects, where you have a schedule where you have to meet deadlines and I don't feel it moves so quickly here and to be someone who is very focused on delivering at this stage, deliver deliver deliver, and a company here where I don't feel the general pace is the same, its been really frustrating for me. I feel a little like to make one step forward I have to bang my head against the wall a lot, professionally.*

Two of the participants are from the Philippines and elaborated on the differences in the work ethic that exists in their countries compared to what they are faced with now. Both women commented that co-worker behaviours and attitudes to work were so different to their home countries that adapting to this new work environment posed a challenge to them. Outside of the work ethic of co-workers other factors contributing to the challenges faced at work included being landed with unexpected and difficult job descriptions, and working with a multitude of nationalities.

While work-life seemed to be central to many of their accounts it was also evident that the participants experienced further challenges outside the world of work. These were seen with adjusting to the culture, financial difficulties due to the high cost of living, facing local/expatriate divide, and difficulties with building deep relationships. Sarah's description best describes the experience of culture shock:

*Sarah: the first day I came over, I was so shocked because back home Sundays are like, its like, times square all over, there are crowds and crowds all over, and , I arrive on a Saturday and the next say is Sunday and I don't see any people outside my Hotel, it seems like a ghost town, so the feeling of being in such a small country with too few people compared to where I 'm coming from it was, jarring, and it sets you up for homesickness, and loneliness.*

In dealing with these feelings of displacement the majority of the participants displayed, what is referred to here, as a pro-active attitude by seeking activities and clubs to join. Daniella referred to this as "making my life as normal as possible". Some of the participants chose to take part in local activities or took up a hobby such as scuba diving or opting for volunteer work. One of the participants mentioned turning to church as a refuge and as a way to find and make new friends, to help in her adjustment. Two of the participants discussed with fondness, the 'expat society' that they are a part of and described it as a "support network" where there's "always some one there to have a chat with". For most of the participants positive and open minded attitudes were paramount to being able to succeed on an international experience. Adjectives such as "outgoing" "keen" "positive" and "open-minded" were used by the women to describe the attributes they believed were essential in order to succeed in their situation. Most of the participants reported that most of their friends were expatriates and they felt that this was quite normal but were aware of various 'sub-cultures' in existence on the island that makes it difficult to adjust to a 'Caymanian' culture per se and causes a divide between expatriates and locals. Courtney describes her difficulties in identifying a uniquely caymanian culture amongst all the sub-cultures and explains that it is more common for those who are alike to stick together.

*Courtney: there are so many people from so many different parts of the world, that to adapt to the culture you could be adapting to the ex-pat culture...or you could be adapting to the Caymanian culture, or to the Jamaican culture, there's lots of sub cultures. Generally I have found it good, we haven't integrated an awful lot with the Caymanian society in terms of friends and family, we have some close friends that are Caymanian but most of our friends are expats, and I think that's just a natural move, Jamaicans tend to socialise with Jamaicans cause they're similar you know they have the same backgrounds same values and I think that's one of the reasons why we've just naturally made more friends with expats.*

While one participant deliberately sought to not integrate completely in the expatriate society and chose along with her husband to actively take part in the community and maintain a balance of friends, it was more common for participants

to have a higher ratio of expatriate friends. Patricia refers to the transience of the island as a challenge to her making and keeping deep relationships with people. While she also alludes to the general sense of segregation that occurs, she does not feel that it is a problem that causes concern to her.

*Patricia: Cayman is a difficult place, with regard to trying to adopt any sort of local culture, cause again the place is so transient and you get a lot of expats here who bring a lot of their own culture and the reality is, it turns into a massive melting pot, also I mean, although there isn't a deliberate segregation of locals vs expats, that's what, you know, tends to happen... I have a few Caymanian friends but I have more expatriate friends, but I think that's a general rule in Cayman for everybody.*

While the participants noticeably played down the affects of the segregation that exists between expatriates and locals what was almost unanimous was the discrimination that exists and the encounters they have directly or indirectly experienced, against expatriates. It was clear that perceived local attitudes about expatriates, paired and at times fuelled by the policies of the Government contributed to very real experiences of discrimination.

### 3.3 Discrimination

The most prevalent issue of discrimination faced by the participants was surrounding the area of their expatriate identity, with only two reporting that discrimination based on their gender was a minor problem. These two women reported the presence of an 'old boys network' at their place of work and while there was little direct discrimination against them, it existed by the exclusion of them from it. One woman felt that she had to justify herself a lot more than her male counterparts when she made decisions but was adamant that she never discusses her gender and uses her knowledge and understanding of her male co-workers to solve any problems she may encounter with them. However, a number of participants discussed that expatriate discrimination seems to be a part of the culture, and is a social norm that is encouraged by the Government of the Cayman Islands through their policies. Most of the participants described how expatriates are forced to accept the situation, if they wish to stay on the island and are faced with circumstances where they "feel scared about saying something" for fear of their permits being revoked and where they live with "some kind of threat over their heads". Chloe describes the shock and injustice she felt when reading letters submitted to the local newspaper, and the subsequent defensiveness that a number of the participants exuded, when discussing the matter.

*Chloe: ...reading the papers and the way they really don't want the expats here, I've found that completely shocking, I came in, if there had been someone else who could have done my job they'd have got a job, I wasn't just chosen cause I was English, I've got two degrees, a finance degree and a law degree and all this management experience and there wasn't anyone here that Nancy could find and she had to keep looking but you know.... some of the letters they write or things that are written in the paper, you just wouldn't be allowed to write it in an English paper, you'd be put you up before the European courts of Human rights, (for) discriminating against people.*

Illustrating the dissonance one feels when confronted with abrasive situations because of her expatriate identity and the effects that this can have on building relationships, and on performance at work, as well as the feeling of being forced to accept it, is outlined below by Courtney:

*Courtney: ...in sessions where we are planning for the future, I have made comments about what I think the direction should be and have had comments made back along the lines of 'that's our business as Caymanians, its got nothing to do with you' and things like that so yes I have had, definitely felt that my opinion wasn't as welcome because of my status as a foreigner... it doesn't encourage bonding with those individuals, it makes me feel like backing away from those people with my professional opinions and personally as well. Every time you hear those comments and you get knocked back you have a decision to make, whether you fight it, and I don't think you are going to win, so you have to decide are you going to be all aggressive and fight which isn't necessarily going to help the next time you have a work permit to be reviewed, or are you just going to shut up and let it go and that's what I tend to do, which isn't, I don't think it's the right thing, if it was happening to my daughter or my friend I wouldn't advise that. But you are always held to ransom by your work permit and your 7 year status and those types of things and I have seen examples in my company where expats have had letters written up to the government completely falsifying, just to try and get rid of someone who is different and I don't want to go down that path so its not worth it, so I think you give less, I think professionally you give less and personally you do.*

What was noticeable was that while the segregated society may fuel and be fuelled by prejudiced attitudes it is also functions as a source of refuge, where the participants could turn to their support network of expatriate friends to get away from the insecurity and instability that comes with being an expatriate in Cayman. The participants also spoke of dealing with these feelings by ignoring them or by trying to empathise with locals.

Although the women painted a picture of living with uncertainty and discrimination all of them spoke of the satisfaction they feel living and working overseas. They were happy, content and enjoyed the lifestyle and the environment around them. The participants felt positive and in some cases inspired for their future which made amends for the negative experiences they may feel surrounding their expatriate identity on the island.

### 3.3 Value of International Experience

Five of the six women reflected on their time so far and reported that they have grown both professionally and on a personal level. Two participants indicated that their inter-personal and communication skills have grown “leaps and bounds” and another mentioned that her “confidence” has improved. Five of the six participants reported that they have learned many new skills in their jobs and one woman has been challenged in ways that made her “strong enough to move forward”. Two women reported that their jobs and the technical and organisation skills developed were the crucial factor in determining future career success. For these women it was the job and not the experience of working internationally that was most important. This sentiment is illustrated by Daniellas comments:

*Daniella: I have something to add, some significant items I could add to (my CV), so it would add to my employability.(and) it's what I have done abroad, not really the country or being abroad, but what I have done abroad is what matters.*

An alternative feeling to this is held by Chloe who holds positive perceptions of international experience and the effects it can have on future career.

*Chloe: just having offshore experience on your CV is great (and) it can only ever benefit your career , cause people know its taken quite a bit of you to come out of your comfort zone, and go abroad and try something new, so it'll always help.*

It was perceptions such as Chloe's that were predominant amongst participant responses, with some of the participants highly in favour of international experiences and the benefits that can be reaped from taking one on. Courtney whose career has been built on the international front best highlights these positive feelings when asked whether she felt her international experience would benefit her career:

*Courtney: I very strongly do, I guess its kind of like asking the pope what he thinks of being Catholic...I do because I see people who have spent 20 years in the same company, in the same country in the same job and In some respects, unless they are really hungry to advance themselves you become complacent, I think, not always, but I'm generalising, and once you become complacent I think its very easy for someone on the outside to come in and sneak into the next available management position without you being considered cause you haven't grown your skills. I don't think I'd be where I am now if I didn't move around as much as I have... I think you can increase your salary by moving in different companies cause you move up faster than if you stay within the same one, so I think it can have financial benefits, I think the world is changing like that, I think we travel more as a people so its more accepted as well.*

Patricia, who has undergone a career change while being in Cayman, is extremely pleased with her career, her social life and the country in which she is living. In a similar vein to Courtney's sentiments Patricia feels very strongly that working offshore is a very positive move to make in terms of building and developing a career and achieving success a lot quicker than what would be had in ones home country.

*Patricia: I think that if anyone is bright and really wants to get ahead then offshore is probably really the best thing you can do for your career. In London, there's that whole added, you know, too many fish in the pond or whatever it is, here there is less competition for the roles available and also people tend to take more of a chance with employees, you know, my boss took a chance on me, I'd never done recruitment before so he just said well, I know you and I think you could do it and that would just never happen in London. In London, if I was to change careers and move into recruitment, I would have to start at the very bottom... and I would be there for 5, 6, 7, 8 years even before I even get promoted to the place I am now and for me it happened within a yea here, so...I mean if I were to go back home now, with the experience I've got here, offshore recruitment experience, I'd pretty much expect to walk in to a role at the same level that I am at now.*

Working with many different nationalities, although presented as a challenge by one participant, was favourably accepted by the rest, who saw the experience as improving their cultural awareness and “tolerance”. The perception was that such an experience will make one a more “interesting candidate” or be seen as a “plus factor” to future employers. These perceptions centred mostly on aspects of personal development as enhancing their career prospects.

*Patricia: international experience, means employers see you as more rounded individual able to take more risks even, you know, able to cope with situations,(and) move out of your comfort zone.*

Having had the experience of living and working in Cayman, all of the women taking part felt that they would take on another international experience and the sense of achievement has inspired them all to think of the future differently in terms of what they want. This idea is illustrated below:

*Brenda: Its kind of given me a different outlook on life as well, in terms of, for myself I've decided that if I was in the position that I couldn't stay here, rolled over or whatever it might be, then I would probably go for a career change, seeing that I've got to the level now, I've enjoyed it but I want to try something a bit different... something environmental.*

*Patricia: I mean I have thought about leaving Cayman in the past, the problem is, I don't know where else I would go, I think I made the best decision coming here, so I'm not entirely sure where else I would go and still have the same opportunities as I have here. Business is going well, my social life is great and I'm very happy. I've been here almost three years now and it's been good, and I would absolutely do it again. Initially I was here for a year but then I got my job and I got my two year contract and so that was my time limit really, my two year contract has ended and I'm still here. And then every time I go home, everyone seems so miserable, everyone here is quite happy, so I don't think I'll be leaving anytime soon.*

While all but one of the participants were unsure about how long they would remain on the island, they all reported that the seven year immigration policy introduced by government would be the most influential factor in their decision to leave. These thoughts suggest that these women are looking for a sense of permanency and stability in their lives. This was also illustrated across the sample with a number of women going through a change of mindset in terms of how long their stay would be. It was commonly reported that they have opted to stay longer than originally intended. One woman's desire for stability was choosing to leave the island and the insecurity that comes with it so that she could settle down and start a family. When asked whether she would have made the decision to leave if the roll over policy was not in existence Courtney had this to say.

*Courtney: it's unlikely, generally my husband and I have always said that we would eventually go back home in the south pacific somewhere but I don't think I would have chased opportunities as hard as I have done now. It's just the hassle factor as well and not feeling settled, although as expats you maybe never feel quite as settled, but it would have been nice to think about staying here longer, whereas now the thought of staying longer is tied with all the hassle involved and the complications. Now that I'm at the age where I'd like to start a family, my sister is having children, my parents are getting older and it has a pull towards home for us now for myself and for my husband so, I think, although there's plenty of expat women who have children overseas, for me I'm more encouraged to look for a posting close to home, cause you can't live out of a suitcase forever.*

#### 4. Discussion

The purpose of this research was to understand the experiences of self-initiated professional female expatriates by way of the three research questions that were generated to help elucidate on matters such as what influences female professionals to choose a self-initiated international work experience, how the overseas work experiences of professional female self-initiated expatriates affect their perceptions of their future career and employability and finally, whether self-initiated professional female expatriates experience discrimination while overseas.

The findings presented above shed light on all three areas presented by the research questions. Participant responses illustrated that there were a number of influences combined that led to their SIE. Unlike studies of self-directed academics (Richardson & Mallon, 2005) career was identified as one of the major incentives to expatriation for professional females in this study. Another important influence was the location, the participants demonstrated careful and strategic thought processes when deciding where to take on their SFE. Contributory factors were; having no ties, dissatisfaction with current lifestyle, the right timing, desire for a challenge and seeking independence. It was clear that there were many factors involved in making the final decision. The participants unanimously held positive perceptions of their international experiences and felt that in one way or the other it would benefit their career prospects and their employability. All participants believed that they would take on another international overseas in the future. While few of the women reported experiences of gender discrimination most of them reported experiencing either direct or indirect discrimination because of their identity as an expatriate. They were able to manage this by seeking support within expatriate society, ignoring it or trying to empathise with and understand local attitudes.

The experiences of these six women working in the Cayman Islands indicate that professional women are pro-active in taking control of their own careers as is characterised by the protean career concept (Crowly-Henry & Weir, 2007; Briscoe et al, 2006; Inkson, 2006). They have displayed risk taking behaviours in the search for personal and career related challenges. Unlike those that take on an OE (Inkson et al, 1997; Inkson & Myers, 2003) the participants in this research are career focused and have found a way to enrich themselves by personal and professional development through SFE. This study has shown that the participants consistently reported positive perceptions of their future career prospects and employability because of their international work experience, which corroborates what has been found with traditional expatriates (Bolino, 2007; Stahl et al, 2002; Rothwell and Arnold, 2007). The proposition put forward by Suutari and Brewster (2000) that SFEs are more likely to represent early and less professional career stages was not evident in this study. The participants reflect women working in professional positions at managerial and senior management levels. Over half the sample chose an SFE in the middle of their already developed careers, while one participant had had continuous international experience from the start of her career. The participants illustrated areas of competencies across all levels of Caligiuris' (2006) table of KSAOs for competency in global leadership. This indicates that it is possible that professional women SIEs could offer a "ready made" candidate to MNCs (Selmer & Lam, 2004).

#### 4.1 Conclusions

In light of the three research questions guiding this research, it can be seen firstly that the decision to expatriate for professional females can be understood in terms of a multi-factor decision making process. In answer to the second research question it has been illustrated that positive perceptions of career prospects and future employability are held by these female professionals, and are seen as a consequence of their overseas work experience. Finally, the discrimination encountered by professional expatriate females in the Cayman Islands, is mostly due to their identity as expatriates but does not impair their overall positive experiences of living and working in the Cayman Islands.

This topic area would be enhanced by a longitudinal study comparing the perceptions professional women have of their future career prospects with what occurs once they have completed an initial international experience. Other potential research could look at the effects of discrimination on work performance, or on the potential for MNCs of using those who have chosen SFE as replacements for traditional expatriates.

#### References

- About Cayman. n.d. Retrieved on October 9<sup>th</sup>, 2007, from Cayman Islands Government website: [http://www.gov.ky/portal/page?\\_pageid=1142,1481068&\\_dad=portal&\\_schema=PORTAL](http://www.gov.ky/portal/page?_pageid=1142,1481068&_dad=portal&_schema=PORTAL)
- Adler, N.J. (1984a). Women Do Not Want International Careers and Other myths about International Management. *Organizational Dynamics*. Vol, 13(2), 66-79.
- Adler, N.J. (1984b). Expecting International Success: Female Managers Overseas. *Columbia Journal of World Business*. Vol, 19(3), 79-85.
- Adler, N.J. (1994). Competitive Frontiers: Women Managing across Borders. *Journal of Management Development*. Vol, 13(2), 24-41.
- Anderson, V. (2004). *Research Methods in Human Resource Management*. London: CIPD.
- Arthur, M.B., and Rousseau, D.M. (1996). *The Boundaryless Career*. New York: Oxford Press.
- Auerbach, C.F., and Silverstein, L.B. (2003). *Qualitative Data: An Introduction to Coding and Analysis* (Electronic version). New York: New York University Press.
- Baruch, Y., Budhwar, P.S., and Khatri, N. (2007). Brain drain: Inclination to stay abroad after studies (Electronic version). *Journal of World Business*. Vol, 42, 99-112.
- Bikos, L.H., Ciftci, A., Guneri, O.Y., Demir, C.E., Sumer, Z.H., Danielson, S., DeVries, S. and Bilgen, W.A. (2007). A Longitudinal, Naturalistic Inquiry of the Adaptation Experiences of the Female Expatriate Spouse Living in Turkey. *Journal of Career Development*. Vol, 34(1), 28-58.
- Black, J.S. and Gregersen, H.B. (1999). The Right Way to manage Expats. *Harvard Business Review*. March/April, 52-62.
- Bolino, M.C. (2007). Expatriate assignments and intra-organizational career success: implications for individuals and organizations (Electronic version). *Academy of International Business*. Vol, 38, 819-835.
- Briscoe, J.P. & Hall, D.T. (2006). The interplay of boundaryless and protean careers: Combinations and implications. *Journal of Vocational Behavior*. Vol, 69, 4-18.
- Briscoe, J.P., Hall, D.T., Frautschy DeMuth, R.L. (2006). Protean and boundaryless careers: An empirical exploration. *Journal of Vocational Behavior*. Vol, 69, 30-47.
- Brocki, J.M. and Wearden, A.J. (2006). A critical evaluation of the use of interpretative phenomenological analysis (IPA) in health psychology. *Psychology and Health*. Vol, 21(1), 87-108.
- Bryman, A. and Bell, E. (2007). *Business research methods (2<sup>nd</sup> edition)*. Oxford: Oxford University Press.
- Caligiuri, P.M. (1997). Assessing Expatriate Success: Beyond Just "Being There". *New Approaches to Employee Management*. Vol, 4, 117-140.
- Caligiuri, P.M. & Stroh, L.K. (1995). Multinational corporation management strategies and international human resources practices: bringing IHRM to the bottom line. *The International Journal of Human Resource Management*, Vol, 6(3), 494-507.
- Caligiuri, P.M. (2000). Selecting Expatriates for Personal Characteristics: A Moderating Effect of Personality on the Relationship Between Host National Contact and Cross-cultural Adjustment. *Management International Review*. Vol, 40 (1), 61-80.
- Caligiuri, P. and Lazarova, M. (2002). *International Journal of Human Resource Management*. Vol, 13(5), 761-772.
- Caligiuri, P. (2006). Developing Global Leaders. *Human Resource Management Review*. Vol, 16, 219-228.

- Cappellen, T., and Janssens, M. (2005). Career paths of global managers: Towards future research. *Journal of World Business*. Vol, 40, 348-360.
- Carr, S.S., Inkson, K., and Thorn, K. (2005). From Global carers to talent flow: Reinterpreting 'brain drain'. *Journal of World Business*. Vol, 40, 386-398.
- Chapman, E. and Smith, J.A. (2002). Interpretative Phenomenological Analysis and the New Genetics. *Journal of Health Psychology*. Vol, 7, 125-130.
- Collings, D.G., Scullion, H., and Morley, M.J. (2007). Changing patterns of global staffing in the multinational enterprise: Challenges to the conventional expatriate assignment and emerging alternatives. *Journal of World Business*. Vol, 42, 198-213.
- Crowley-Henry, M., and Weir, D. (2007). The international protean career: four women's narratives. *Journal of Organizational Change Management*. Vol, 20(2), 245-258.
- Dickmann, M & Harris, H. (2005). Developing career capital for global career: The role of international assignments. *Journal of World Business*. Vol, 40, 399-408.
- Feldman, D.C. and Ng, T.W.H. (2007) Careers: Mobility, Embeddedness, and Success. *Journal of Management*. Vol, 33 (3), June, 350-377.
- Fenwick, M. (2004). On international assignment: Is expatriation the only way to go? *Asia Pacific Journal of Human Resources*. Vol, 42(3), 365-377.
- Fischlmayr, I.C. (2002). Female self-perception as barrier to international careers? *International Journal of Human Resource Management*. Vol, 13(5), 773-783.
- Fugate, M., Kinicki, A.J., and Ashforth, B.E. (2004). Employability: A psycho-social construct, its dimensions, and applications (Electronic version). *Journal of Vocational Behavior*. Vol, 65, 14-38.
- GMAC Global Relocation Services. (2005). *Global relocation trends: 2005 survey report*. New Jersey: GMAC.
- Grbich, C. (2007). *Qualitative data analysis an Introduction*. London: Sage Publications Ltd.
- Guthrie, J.P., Ash, R.A. and Stevens, C.D. (2003). Are women "better" than men? Personality differences and expatriate selection. *Journal of Managerial Psychology*. Vol, 18(3), 229-243.
- Hall, D.T., and Moss, J.E. (1998). The new Protean Career contract: helping organizations and employees adapt. *Organizational Dynamics*. Vol, 26(3), 22-37.
- Hart, C. (2005). *Doing your Masters Dissertation*. London: Sage Publications Ltd.
- Hartl, K. (2004). The expatriate career transition and women managers' experiences. *Women in Management Review*. Vol 19 (1), 40-51.
- Hutchings, K. (2003). Cross-cultural preparation of Australian expatriates in organisations in China: The need for greater attention to training. *Asia Pacific Journal of Management*. Vol, 20(3), 375-396.
- Inkson, K. and Myers, B.A. (2003). "The big OE": self-directed travel and career development (Electronic version). *Career Development International*. Vol 8 (4), 170-181.
- Inkson, K. (2006). Protean and boundaryless careers as metaphors. *Journal of Vocational Behavior*. Vol, 69, 48-63.
- Inkson, K., Pringle, J., Arthur, M.B., and Barry, S. (1997). Expatriate Assignment Versus Overseas Experience: Contrasting Models of International Human Resource Development. *Journal of World Business*. Vol, 32(4), 351-368.
- Izraeli, D.N., Banai, M. and Zeira, Y. (1980). Women Executives in MNC subsidiaries. *California Management Review*. Vol, 23, 53-63.
- Janssens, M., Cappellen, T. and Zanoni, P. (2006). Successful female expatriates as agents: Positioning oneself through gender, hierarchy, and culture. *Journal of World Business*. Vol 41, 133-148.
- Kollinger, I. (2007). Women and expatriate work opportunities in Austrian organizations. *The International Journal of Human Resource Management*. Vol, 16(7), July, 1243-1260.
- Labour Force Survey Report. (2006). Retrieved on January 22<sup>nd</sup> from the Economics and Statistics Office website: <http://www.eso.ky/pages.php?page=labourforcesurveys>
- Lazarova, M.B. and Cerdin, J-L. (2007). Revisiting repatriation concerns: organizational support versus career and contextual influences. *Journal of International Business Studies*. Vol, 38, 404-429.
- Lee, C.H. (2005). A study of underemployment among self-initiated expatriates. *Journal of World Business*. Vol, 40, 172-187.

- Linehan, M. and Scullion, H. (2001). European female expatriate careers: critical success factors. *Journal of European Industrial Training*. Vol, 25(8), 392-418.
- Linehan, M., Scullion, H. and Walsh, J.S. (2001). Barriers to women's participation in international management. *European Business Review*. Vol 13, (1), 10-18.
- Mann, E. and Abraham, C. (2006). The role of affect in UK commuters' travel mode choices: An interpretative phenomenological analysis. *British Journal of Psychology*. Vol, 97, 155-176.
- Mehmet, O., & Tahiroglu, M. (2002). Growth and equity in microstates Does size matter in development? *International Journal of Social Economics*. Vol,29(1/2),152-162.
- Metz, I. and Tharenou, P. (2001). Women's Career Advancement: The Relative Contribution of Human and Social Capital. *Group & Organization Management*. Vol, 26 (3), 312-342.
- Millward, L.J. (2006). The transition to motherhood in an organizational context: An interpretative phenomenological analysis. *Journal of Occupational and Organisational Psychology*. Vol, 79, 315-333.
- Mol, S.T., Born, M.Ph., Willemsen, M.E. and Van Der Molen, H.T. (2005). Predicting Expatriate Job Performance for Selection Purposes: A Quantitative Review. *Journal of Cross-Cultural Psychology*. Vol, 36(5), September, 590-620.
- Moore, M.J. (2002). Same ticket, different trip: supporting dual-career couples on global assignments (Electronic version). *Women in Management Review*. Vol, 17(2), 61-67.
- Myers, B. and Pringle, J.K. (2005) Self-initiated foreign experience as accelerated development: Influences of gender. *Journal of World Business*. Vol 40, 421-431.
- Napier, N.K. and Taylor, S. (2002). Experiences of women professionals abroad: comparisons across Japan, China and Turkey. *International Journal of Human Resource Management*. Vol, 13(5), 837-851.
- Neuendorf, K.A. (2002). *The Content Analysis Guidebook*. California: Sage Publications.
- Neuman, W.L. (2006). *Social Research Methods Qualitative and Quantitative Approaches (6<sup>th</sup> edition)*. Boston: Pearson Education, Inc.
- Onwuegbuzie, A.J & Leech, N.L. (2007) Sampling Designs in Qualitative Research: Making the Sampling Process more Public. *The Qualitative Report*. Vol, 12 (2), June, 238-254.
- Paik, Y. and Vance, C.M. (2001) Evidence of Back-Home Selection Bias against US', Female Expatriates. *Women in Management Review*. Vol, 17(2), 68-79.
- Paik, Y., Segaud, B. and Malinowski, C. (2002). How to improve repatriation management Are motivations and expectations congruent between the company and expatriates? *International Journal of Manpower*. Vol, 23(7), 635-648.
- Patton, M.Q. (2002). *Qualitative Research & Evaluation Methods (3<sup>rd</sup> ed)*. California; Sage Publications.
- Pires, G., Stanton, J. and Ostefeld S. (2006). Improving expatriate adjustment and effectiveness in ethnically diverse countries: marketing insights. *Cross Cultural Management: An International Journal*. Vol, 13(2), 156-170.
- Population and Vital Statistics. (2005). Retrieved on October 9<sup>th</sup>, 2007, from the Economics and Statistics office website: <http://www.eso.ky/docum1/docum14.pdf>
- PricewaterhouseCoopers. (2005). *International assignments: Global policy and practice, Key trends 2005*. PricewaterhouseCoopers.
- Richardson, J. (2006). Self-directed expatriation: family matters. *Personnel Review*. Vol 35 (4), 469-486.
- Richardson, J. and Mallon, M. (2005). Career interrupted? The case of the self-directed expatriate. *Journal of World Business*. Vol 40, 409-420.
- Riusala, K., and Suutari, V. (2000). Expatriation and careers: perspectives of expatriates and spouses. *Career Development International*. Vol, 5(2), 81-90.
- Rothwell, A., and Arnold, J. (2007). Self-perceived employability: development and validation of a scale (Electronic version). *Personnel Review*. Vol, 36(1), 23-41.
- Saunders, M., Lewis, P & Thornhill, A. (2007). *Research Methods for Business Students (4<sup>th</sup> ed)*. Essex: Pearson Education Limited.
- Schuler, R.S., and Tarique, I. (2007). International human resource management: a North American perspective, a thematic update and suggestions for future research. *International Journal of Human Resource Management*. Vol, 18(5), 717-744.
- Scott, K.A. and Brown, D.J. (2006). Female first, leader second? Gender bias in the encoding of leadership behaviour. *Organisational Behaviour and Human Decision Processes*. Vol, 101, 230-242.

- Selmer, J., and Leung, A.S.M. (2003a). International adjustment of female vs male business expatriates. *International Journal of Human Resource Management*, Vol, 14(7), November, 1117-1131.
- Selmer, J., and Leung, A.S.M. (2003b). Provision and adequacy of corporate support to male expatriate spouses An exploratory study. *Personnel Review*. Vol, 32(1), 9-21.
- Selmer, J., Chiu, R.K., and Shenkar, O. (2007). Cultural distance asymmetry in expatriate adjustment. *Cross Cultural Management: An International Journal*. Vol, 14(2), 150-160.
- Selmer, J., and Lam, H. (2004). Third-culture kids Future business expatriates? *Personnel Review*. Vol, 33(4), 430-445.
- Shaffer, M.A., Harrison, D.A., Gregersen, H., Black, J.S. & Ferzandi, L.A. (2006). You Can Take It With You: Individual Differences and Expatriate Effectiveness. *Journal of Applied Psychology*. Vol, 91(1), 109-125,
- Silverman, D. (2006). *Interpreting Qualitative Data* (3<sup>rd</sup> ed). London: Sage Publications.
- Sims, R.H & Schraeder, M. (2005). Expatriate compensation An exploratory review of salient contextual factors and common practices. *Career Development International*. Vol, 10(2), 98-108.
- Sinangil, H. K. and Ones, D.S. (2003). *Applied Psychology: An International Review*. Vol, 52(3), 461-475.
- Smith, J.A. & Osborn, M. (2008). Interpretative Phenomenological Analysis. In J.A Smith (Ed.). *Qualitative Psychology A practical guide to research methods* (2<sup>nd</sup> edition) (pp.53-80). London: Sage Publications.
- Sparrow, P.R. (2007). Globalization of HR at function level: four UK-based case studies of the international recruitment and selection process. *International Journal of Human Resource Management*. Vol, 18(5), 845-867.
- Stahl, G.K, Miller, E.L., Tung, R.L. (2002). Toward the boundaryless career: a closer look at the expatriate career concept and the perceived implications of an international assignment. *Journal of World Business*. Vol, 37, 216-227.
- Stroh, L.K and Caligiuri, P.M. (1998). Increasing Global Competitiveness through Effective People Management. *Journal of World Business*. Vol, 33 (1), 1-16.
- Sullivan, S.E., and Arthur, M.B. (2006). The evolution of the boundaryless career concept: Examining physical and psychological mobility. *Journal of Vocational Behavior*. Vol, 69, 19-29.
- Suutari, V., and Brewster, C. (2000). Making Their Own Way: International Experience Through Self-Initiated Foreign Assignments. *Journal of World Business*. Vol, 35(4), 417-436.
- Suutari, V., and Taka, M. (2004). Career anchors of managers with global careers (Electronic version). *Journal of Management Development*. Vol, 23(9), 833-847.
- Tan, D & Mahoney, J.T. (2006). Why a Multinational Firm Chooses Expatriates: Integrating Resource-Based, Agency and Transaction Costs Perspectives. *Journal of Management Studies*. Vol, 43(3), 0022-2380.
- Tarique, I, Schuler, R. & Gong, Y. (2006). A model of multinational enterprise subsidiary staffing composition. *International Journal of Human Resource Management*. Vol, 17(2), 207-224.
- Tharenou, P. & Harvey, M., (2006). Examining the overseas staffing options utilized by Australian headquartered multinational corporations. *International Journal of Human Resource Management*. Vol, 17(6), 1095-1114.
- Tharenou, P. (2003). The initial development of receptivity to working abroad: Self-initiated international work opportunities in young graduate employees. *Journal of Occupational and Organizational Psychology*. Vol, 76, 489-515.
- Thomas, D.C., Lazarovam M.B. and Inkson, K. (2005). Global careers: New phenomenon or new perspectives? *Journal of World Business*. Vol, 40, 340-347.
- Tzeng, R. (2006). Gender issues and family concerns for women with international careers. *Women in Management Review*. Vol, 21(5), 376-392.
- Tung, R.L. (2004). Female Expatriates The Model Global Manager? *Organizational Dynamics*, Vol, 33(3), 243-253.
- Vance, C.M. (2005). The personal quest for building global competence: A taxonomy of self initiating career path strategies for gaining business experience abroad. *Journal of World Business*. Vol 40, 374-385.
- Waxin, M-F. & Panaccio, A. (2005). Cross-cultural training to facilitate expatriate adjustment it works! *Personnel Review*. Vol, 34(1), 51-67.
- Wise, A.J. and Millward, L.J. (2005). The experiences of voluntary career change in 30-somethings and implications for guidance. *Career Development International*. Vol, 10 (5), 400-417.
- Yan, A., Zhu, G., and Hall, D.T. (2002). International assignments for career building: A model of agency relationships and psychological contracts. *Academy of Management Review*. Vol, 27(3), 373-391.

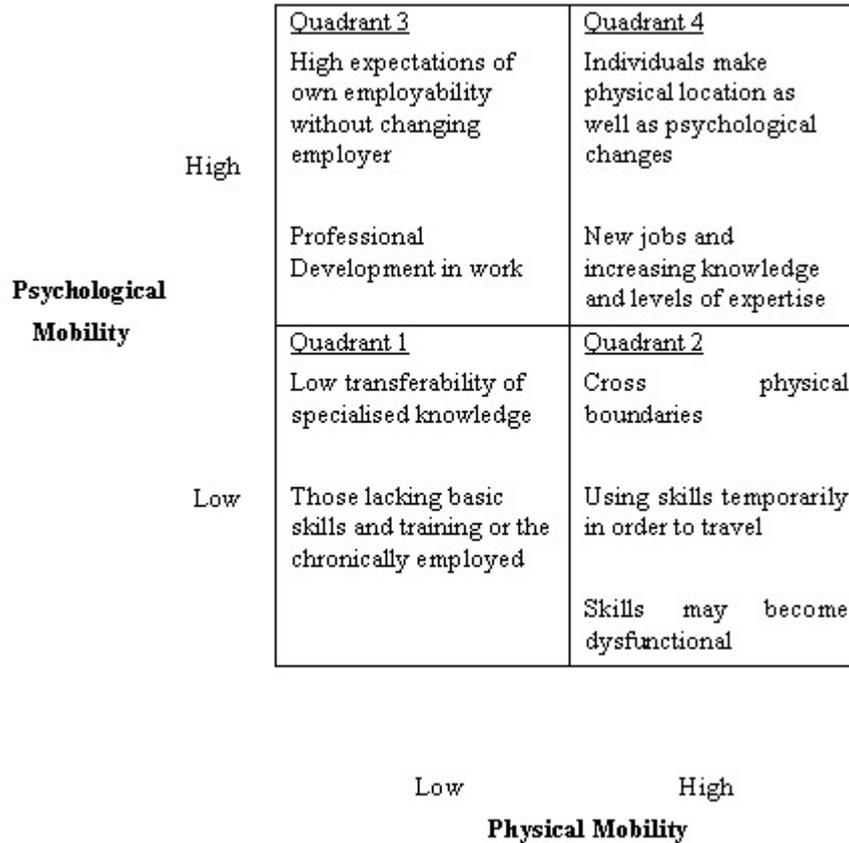


Figure 1. Two dimensions of boundaryless careers. Adapted from Sullivan & Arthur, 2006, pp. 22.

Table 1. The KSAOs for competency in global leadership (Caligiuri, 2006, pp. 221-223)

<b>Knowledge</b>	Culture -general Knowledge Culture-specific Knowledge International business Knowledge
<b>Skills + abilities</b>	Intercultural Interaction Skills Foreign Language Skills Cognitive ability
<b>Personality Characteristics</b>	Extroversion Agreeableness Conscientiousness Emotional stability Openness or intellect

Table 2. Demographic Profile of Sample

Pseudonym	Nationality	Age Group	Education	Industry	Job Title	No. of International Work experiences.	Previous Job Title	Years in Cayman	Married	Children
<b>Brenda</b>	British	30-39	Post Grad	Retail	HR Manager	1	People Manager	2	Yes	0
<b>Sarah</b>	Filipino	40-49	Post Grad	Public Sector	Director	0	Director	4	No	0
<b>Courtney</b>	New Zealand	30-39	Undergrad	Telecoms.	Manager	4	Programme Manager	4	Yes	0
<b>Patricia</b>	British	20-29	Undergrad	Recruitment	Vice President Of Finance	0	Accountant	2.5	No	0
<b>Chloe</b>	British	40-49	Undergrad	Legal	Vice President Internal Audit Manager	0	Manager	1	No	0
<b>Daniella</b>	Filipino	30-39	Undergrad/Prof. Studies (CPA)	Utilities		0	Auditor	2.5	No	0



## Statistical Analysis and Empirical Study for Life Insurance

Xiang Jiang, Jian Ni

Guangxi Medical and Pharmaceutical College, Nanning 530021, China

Tel: 86-771-2853-644 E-mail: gxjxk@126.com

Weiqi Wu

Guangxi Industrial Vocational Technical College, Nanning 530001, China

Tel: 86-771-3851-662 E-mail: gxwuweiqi@163.com

### Abstract

According to the uncertainty of insurance accident, in this article, we introduce the importance of insurance and the application of probability statistics in the insurance, briefly describe several parameter models about life distribution (i.e. life models), discuss the establishment and use of the life table, and statistically analyze the profit and loss and insured amount in life insurance. The result could possess certain directional meanings and reference function for practical works.

**Keywords:** Life insurance, Probability statistics, Statistical analysis, Life model, Empirical Study

### 1. Introduction

The probability statistics is applied abroad to insurance, including accrual and discount, survival model and life table, statistical analysis of survival and death insurance and statistical analysis of premium and compensation.

Insurance is a bargain which related to right and obligation between insurer and insurance applicant. This bargain regulates in general that the insurance applicant must pay the insurer certain amount premium, and the insurer promise to pay the insured amount when the conventional insurance accident occurs. The insurance categories are quite abundance, because of the different standards, insurance can divide into property insurance, liability insurance and life insurance. The first and second insurance are called non-life insurance, the third is called life insurance.

The calculation of life insurance premium is a complicated question. Firstly, the compositions of premium are determined by many factors. The insurance amount used to pay for the premium simply is called natural premium. But the insurer adopts from insurance applicant is not only the natural premium, but also various fees that each operation produces and various possible risks. Moreover, as the main body of economic, the venture insurance agent should consider certain profits. All those composes gross premium. The gross premium can be calculated based on natural premium. That is, calculates the natural premium according to the equivalence equation firstly, and then adds the necessary risks, fees, profits and other factors. And the calculation of gross premium can also be calculated by using the equivalence equation based on the conservative fees interest rate and weighted coefficient of death rate.

The distinct characteristic of insurance is the uncertainty happening of the insurance accident, such as people's life, traffic accident and contretemps. This characteristic also determines the important role of probability statistics in insurance categories setting, insurance operation expanding and other aspects. So, if you want to be an enviable actuary, you must be on top of statistics.

### 2. Survival model

Among the categories of insurance, life insurance is a traditional and also important insurance. Life insurance relates to people's life characteristic, therefore, it is necessary to research people's characteristic and survival model.

#### 2.1 Remaining Lifetime

Supposing  $T(x)$  is the insurer's remaining lifetime, apparently, it is a non-negative continuous random variable. Marking the  $f_x(t)$  is the distribution density function of  $T(x)$ , and its distribution function is  $F_x(t) = P\{T(x) \leq t\} = \int_0^t f_x(t) dt$ . By all appearances, when  $x=0$ ,  $T(0)$  denotes the remaining lifetime of neonatal infant, and  $F_0(t)$  denotes the distribution function of neonatal infant's remaining lifetime.

#### 2.2 Common marks

At present, international actuarial science uses the traditional mark (Zhang, 2003, P.139-183), where  ${}_tq_x$  denotes the

probability of  $x$  years old life's death rate in  $t$  years,  ${}_t p_x$  denotes the probability of  $x$  years old life's survival until  $t$  years later,  ${}_{s|t} q_x$  denotes the probability of the  $x$  years old life's survival in  $x+s$  years and death rate in  $t$  years after that,  ${}_t p_{x+s}$  denotes the  $x$  years old life's condition probability of the death rate on the condition of its  $x+s$  age. And then, there are

- (1)  ${}_t q_x = F_x(t)$ ,  ${}_t p_x = 1 - F_x(t)$ ,
- (2)  ${}_{s|t} q_x = P\{s \leq T(x) \leq s+t\} = {}_{s+t} q_x - {}_s q_x$ ,
- (3)  ${}_t p_{x+s} = P\{T(x) > s+t | T(x) > s\} = \frac{1 - F_x(s+t)}{1 - F_x(s)}$ ,
- (4)  ${}_t q_{x+s} = P\{T(x) \leq s+t | T(x) > s\} = \frac{F_x(s+t) - F_x(s)}{1 - F_x(s)}$ ,

If  $t=1$ ,  $t$  always is omitted, shortening as  $q_x$ ,  $p_x$  and  ${}_s|q_x$ , etc.

### 2.3 Expectation of Remaining lifetime

If supposing  $e_x^0$  is the expectation of insurant's remaining lifetime when he is  $x$  years old, then it can be easily proved,

$$e_x^0 = \int_0^\infty t f_x(t) dt = \int_0^\infty (1 - F_x(t)) dt = \int_0^\infty {}_t p_x dt$$

### 2.4 Death intensity

Define the  $x$  years old life's death intensity (Zhang, 2003, P.139-183) as  $\mu_{x+t} = \frac{f_x(t)}{1 - F_x(t)} = -\frac{d}{dt} \ln(1 - F_x(t))$ . We can

see that, the death probability of  $x$  years old life in the section of  $(t, t + dt)$  can be expressed as follows,

$P\{t \leq T(x) \leq t + dt\} = {}_t p_x \mu_{x+t} dt$ . Therefore, the expectation of  $x$  years old life's remaining lifetime can also calculates like  $e_x^0 = \int_0^\infty t {}_t p_x \mu_{x+t} dt$ .

The death intensity can also be defined as  $\mu_{x+t} = -\frac{d}{dt} \ln {}_t p_x$ , implement the integral of this formula, we can get that  ${}_t p_x = \exp\left\{-\int_0^t \mu_{x+s} ds\right\}$ . It is obvious that the death intensity of  $x$  years old life's remaining time and the distribution function of it are defined exclusively by each other.

## 3. Several parameter models about life distribution

### 3.1 Life model of De Moivre (1724)

Life model of De Moivre considers that there is a maximal age  $\omega$ , and the remaining lifetime  $T(x)$  of  $x$  years old life in the section of  $(0, \omega - x)$  obeys the equality distribution, i.e.  $f_x(t) = \frac{1}{\omega - x}$ ,  $0 < t < \omega - x$ , so we can get the distribution

function  $F_x(t) = \frac{t}{\omega - x}$ ,  $0 < t < \omega - x$ , and the death intensity is  $\mu_{x+t} = \frac{1}{\omega - x - t}$ ,  $0 < t < \omega - x$ .

### 3.2 Life model of Gompertz (1825) (Zou, 2005)

This model considers that the death intensity increasing is exponential increase, that is,  $\mu_{x+t} = BC^{x+t}$ ,  $t > 0$ ,  $B > 0$ ,  $C > 1$ . By comparing with Life model of De Moivre, life model of Gompertz reflects the course of life preferably, and throws off the maximum age assumption. The calculation becomes easy. The distribution function of life model of Gompertz is  $F_x(t) = 1 - \exp\left\{-\frac{B}{\ln C} e^x (C^t - 1)\right\}$ . In 1860, Makeham extended the model of

Gompertz. He supposed that the death intensity was  $\mu_{x+t} = A + BC^{x+t}$ ,  $t > 0$ ,  $A > 0$ ,  $B > 0$ ,  $C > 1$ , and then the distribution function was  $F_x(t) = 1 - \exp\left\{-At - \frac{B}{\ln C} e^x (C^t - 1)\right\}$ . If  $C = 1$ , the death intensity of Gompertz's and

Makeham's life model are constant. Then the distribution function of  $T(x)$  is exponential distribution function. Although it is simple with math, it can not reflect the life-span of people.

### 3.3 Life model of Weibull (Zou, 2005)

In 1939, Weibull put forward that the death intensity of people was not exponential increase, but increase with power  $t$ ,

that is  $\mu_{x+t} = K(x+t)^n$ ,  $K > 0$ ,  $n > 0$ . And the distribution function of it is  $F_x(t) = 1 - \exp\left\{-\frac{K}{n+1}[(x+t)^{n+1} - x^{n+1}]\right\}$ . The above-mentioned life model is very helpful.

3.4 Application instance of life model

Example 1: Supposed that the death of people aggregate obeys the model of Makeham, we get the data,  $\mu_{20}=0.003, \mu_{30}=0.004, \mu_{40}=0.006$ , then calculate to get  ${}_{10}q_{10}$ .

Solution, According to the model of death and the known data, establish the following system of equations,

$$\begin{cases} \mu_{20} = A + BC^{20} = 0.003, \\ \mu_{30} = A + BC^{30} = 0.004, \\ \mu_{40} = A + BC^{40} = 0.006, \end{cases}$$

Solving the above system of equations, we can get  $A=0.002, B=0.00025, C=2^{\frac{1}{10}}$ , and then the death intensity is  $\mu_{x+t} = 0.002 + 0.00025 \cdot 2^{\frac{x+t}{10}}$ , then  $F_x(t) = 1 - \exp\left\{-0.002t - \frac{0.00025}{\ln 2^{\frac{1}{10}}} e^x (2^{\frac{1}{10}} - 1)\right\}$ , what follows next

$$\text{is } {}_{10}q_{10} = F_{10}(10) = 1 - \exp\left\{-0.002 \cdot 10 - \frac{0.00025}{\ln 2^{\frac{1}{10}}} e^{10} (2^{\frac{1}{10}} - 1)\right\} = 0.0268$$

3.5 Integral remaining lifetime

Definition  $K(x) = [T(x)]$  is integral years which  $x$  yeas old people will live through, sometimes called remaining lifetime. The probability distribution of integral random variable is  $P\{k(x) = k\} = P\{k \leq T(x) < k+1\} = {}_k p_x q_{x+k}$ , ( $k = 0, 1, 2, \Lambda$  , ). The expectation of  $K(x)$  is called the  $x$  yeas old people's expect integral remaining lifetime, sign as  $e_x$ . Then  $e_x = \sum_{k=1}^{\infty} k P\{K(x) = k\} = \sum_{k=1}^{\infty} k \cdot {}_k p_x \cdot q_{x+k}$ , or  $e_x = \sum_{k=1}^{\infty} P\{K(x) \geq k\} = \sum_{k=1}^{\infty} {}_k p_x$ .

The advantage of using the integral remaining lifetime of  $x$  yeas old people is that it predigests the remaining lifetime of  $x$  yeas old people, and it is convenient to the calculation of expectation of remaining lifetime.

Making  $S(x) = T(x) - K(x)$ ,  $S(x)$  is the fraction part of the yeas which  $x$  yeas old people has lived. It is easy to see that  $S(x)$  is a continuous random variable on the integral of (0,1). Assuming that  $K(x)$  and  $S(x)$  are independent, then the conditional distribution of  $S(x)$  do not depend on  $K(x)$  when the value of  $K(x)$  is given, and  $P\{S(x) \leq u | K(x) = k\} = \frac{{}_u q_{x+k}}{q_{x+k}}$ .

Presupposes above formula equal to  $H(u)$ ,  $H(u)$  is a certain function which has nothing to do with  $k$ . There with,  ${}_u q_{x+k} = H(k)q_{x+k}$ ,  $k = 1, 2, \Lambda$ . Supposing  $H(u) = u$ , that is,  $S(x)$  is a homogeneous distribution in the integral of (0,1), then  $e_x^0 = e_x + \frac{1}{2}$ ,  $Var(T(x)) = Var(K(x)) + \frac{1}{12}$ .

Because that the distribution of  $K(x)$  all depends on  $q_x$ , therefore, can structure all kinds of table by means of  $q_x$ . The common life table of insurance is table of  $q_x$ .

4. The composition and application of life table

Through the research on the distribution function of life, that is a random variable, the probability density function and expectation, the probability of certain people's death in certain time or in instantaneous can be expressed as survivorship function and some special symbols. That is to say, we can estimate the life state of insurant in optional age. In practice, we often use the life to stand for this. The survivorship function and life table are connected with each other, and the survivorship function can be calculated through life table. Life table are summary table which be established according to the statistic data of each age's death in certain time.

4.1 Aufbau principle of life table

On the basis of principle of larger number, the survival probability of each age people can be calculated by observed data (estimating frequency by frequency). The common symbols include, new-born life number is  $l_0$ ,  $x$  is the age, and  $\omega$  is the utmost age.

4.2 Characteristics of life table

The Aufbau principle of life table is simple, and is not determined by the total distribution (non-parameter method). The survival expectation number of  $l_0$  new-born life will live to age X is  $l_x = l_0 \cdot s(x)$ , the death expectation number of  $l_0$  new-born life will die between the age of x and x+n is  ${}_0d_x$ . Especially, when n=1, mark as  ${}_n d_x = l_x - l_{x+n} = l_x \cdot q_x$ ,  $d_x = l_x - l_{x+1} = l_x \cdot q_x$ . The sum of years which  $l_0$  new-born life live through on the integral of x and x+n is  ${}_x L_x = \int_x^{x+n} l_y dy$ , and the total number of the individual's remaining life, which can live to age x, is  $T_x = \int_x^{\infty} l_y dy$ , then can get  $e_x^n = \frac{T_x}{l_x}$ .

4.3 Application instance of life table

Example 2: The known value is  $l_x = 10000(1 - \frac{x}{100})$ , please calculate the following values, (1)  $d_{30:20} p_{30:30} q_{30:10} q_{30}$ , (2) the death probability of 20 years old people in the integral of 50 to 55, (3) the average life of the people.

Solution: (1)  $d_{30} = l_{30} - l_{31} = 100$ ,  ${}_{20}p_{30} = \frac{l_{50}}{l_{30}} = 5/7$ ,

$${}_{30}q_{30} = \frac{l_{30} - l_{60}}{l_{30}} = 3/7 \quad {}_{10}q_{30} = \frac{l_{40} - l_{41}}{l_{30}} = 1/70,$$

$$(2) {}_{30|5}q_{20} = \frac{l_{50} - l_{55}}{l_{50}} = 1/16,$$

$$(3) e_x^n = \frac{T_x}{l_x} = \int_k^{\infty} (1 - \frac{x}{100}) dx = 50.$$

4.4 Aufbau principle of selection-ultimate life table (as seen in Table 1)

The health of new employees which get through the fresh physical examination excels the health of old employees which got through the physical examination at a long time ago. The force of selection will disappear with time.

4.5 The application of selection-ultimate life table

The application of life table and the result of calculation expresses as the table 2.

4.6 The assumption about fraction age

4.6.1 Survival situation in life table

Using background, life table provide the distribution of integral age, but sometime we need to analysis the survival situation, so we select the distribution of certain age based on the two data border upon, and estimate the survival situation of fraction age.

4.6.2 Basic principles and common method (interpolation method)

Basic principles and common method (interpolation method) include

(1) Assumption of the equality distribution (linear interpolation),  $s(x+t) = (1-t)s(x) + ts(x+1)$ ,  $0 < t < 1$ ,

(2) Assumption of the death force (geometrical interpolation),  $s(x+t) = s(x)^{(1-t)} \cdot s(x+1)^t$ ,  $0 < t < 1$ ,

(3) Assumption of Balducci (harmonious interpolation),  $\frac{1}{s(x+t)} = \frac{1-t}{s(x)} + \frac{t}{s(x+1)}$ ,  $0 < t < 1$ .

Example 3: The known value is  $l_x = 10000(1 - \frac{x}{100})$ , please calculate the following values under three different fraction

age,  ${}_{0.5}q_{30:5.25}q_{50}, {}_{\mu}q_{30.5}$ .

Solution, under the three assumptions,

$$(1) \text{ Because } q_{30} = \frac{l_{30} - l_{31}}{l_{30}} = \frac{1}{70}, \text{ so, } e^{-n} = p_{30} = \frac{69}{70},$$

$${}_{0.5}q_{30} \underline{UDD} {}_{0.5}q_{30} = \frac{1}{140},$$

$${}_{0.5}q_{30} \underline{CF} 1 - e^{-30} = 1 - \sqrt{\frac{69}{70}},$$

$${}_{0.5}q_{30} \underline{\text{Balducci}} \frac{0.5q_{30}}{p_{30} + 0.5q_{30}} = \frac{1}{139}.$$

$$(2) {}_{5.25}q_{50} = {}_5q_{30} + {}_5p_{50} \cdot {}_{0.25}q_{55},$$

$$\text{Because } {}_5q_{50} = 0.1, {}_5p_{50} = 0.9, q_{55} = \frac{1}{45},$$

$$\text{so, } {}_{5.25}q_{50} \underline{\text{UDD}} 0.1 + 0.9 \cdot 0.25 \frac{1}{45} = 0.105,$$

$${}_{5.25}q_{50} \underline{\text{CF}} 0.1 + 0.9 \cdot \left(1 - \frac{44^{0.25}}{45}\right) = 0.1050422,$$

$${}_{5.25}q_{50} \underline{\text{Balducci}} 0.1 + 0.9 \frac{0.25}{44 + 0.25} = 0.1050847.$$

$$(3) \mu_{30.5} \underline{\text{UDD}} \frac{q_{30}}{1 - 0.5q_{30}} = \frac{1}{69.5},$$

$$\mu_{30.5} \underline{\text{CF}} \mu = -\ln(p_{30}) = -\ln \frac{69}{70},$$

$$\mu_{30.5} \underline{\text{Balducci}} \frac{q_{30}}{p_{30} + 0.5q_{30}} = \frac{1}{69.5}.$$

## 5. The insurance profit and loss analysis based on central limit theorem

### 5.1 The central limit theorem and its meaning

The central limit theorem points out that if one random variable is induced by numerous random factors, and every successive change has few functions, so it could deduce that the random variable which describes the random phenomena obeys the normal school. So to require the sum of random variables in certain area, we should only standardize it and approximately computes it by the normal school. The central limit theorem has directional meaning for the insurance industry, and through it, we can estimate and predict the profit and loss of one insurance company, and the law of larger numbers is the based to establish the modern insurance industry. The following example expatiates on the important function and concrete application of the law of larger numbers and the central limit theorem in the insurance industry.

### 5.2 Example analysis and solution

Example 4: Suppose that there are 10000 people take part in the insurance in one insurance company, and every one pays premium of 12 Yuan to the company every year, and everyone's death probability in one year is 0.006, and his family numbers could draw 1000 Yuan from the insurance company when he dies, then answer the questions, (1) how big the loss probability of the insurance company is? , and (2) how big the probability that the profit of the insurance company in one year is not less than 4000 Yuan?

Solution, Supposing that the number of the death in 10000 people in one year is  $X$ , so  $X \sim B(n, p)$ ,  $n = 10^4$ ,  $p = 0.006$ ,  $q = 1 - p$ , and the year income of the insurance company is  $12 \times 10000 - 1000X$ .

(1) If the insurance company loses money in business, so  $12 \times 10000 - 1000X < 0$ , and  $X > 120$ . From the central limit theorem,  $P\{x > 120\} = P\left\{\frac{X - np}{\sqrt{npq}} > \frac{120 - np}{\sqrt{npq}}\right\} = 1 - \Phi\left(\frac{120 - 10000 \times 0.006}{\sqrt{10000 \times 0.006 \times 0.994}}\right) = 1 - \Phi(7.76931) \approx 0$ .

So the insurance company would not loss money in business.

(2) If the year profit of the insurance company is not less than 40000 Yuan, so  $12 \times 10000 - 1000X \geq 40000$  and  $X \leq 80$ .

$$P\{x \leq 80\} = P\left\{\frac{X - np}{\sqrt{npq}} \leq \frac{80 - np}{\sqrt{npq}}\right\} = \Phi\left(\frac{80 - 10000 \times 0.006}{\sqrt{10000 \times 0.006 \times 0.994}}\right) = \Phi(2.59) \approx 0.995$$

So the probability that the year profit of the insurance company is not less than 40000 Yuan is 0.995.

### 5.3 Result analysis and discussion

Through analysis and solution of the example, we could clearly understand why so many insurance companies come into existence, because the loss probability of insurance company almost is zero, and why insurance type is better for the insurance company in so many insurance types pushed by the insurance companies at present, and we could feel that "the probability statistics is surrounding us", and its application is very extensive.

## 6. Statistical analysis of insured amount in life insurance

The death insurance is the insurance type taking human death as the insurance standard, and if the insured dies in the time limit of contract, the insurer should pay insured amount to the insured, and if the insured live after the time limit of contract, the insurer needs not pay the insured amount. Therefore, the confirmation of insured amount depends on the time limit of contract and the probability character of insured's remaining life, and it also should consider many factors such as the profit of insurance company, the gross income and payout.

According to different payment times of insured amount, the payment method of insured amount can be divided into two sorts, i.e. paying in the late of the year when the insured dies, and paying when the insured dies. First, we introduce the first sort.

Supposing that the contract regulates that after the insured insures his life when he is  $x$  years old, if he dies in the future  $n$  years, the insurer should pay the insured amount of one money unit to the insured in the year he dies, and if the insured could live after  $x+n$  years, the insurer would pay nothing. Suppose  $b(k)$  denotes the insured amount paid in the  $k$ 'th year,  $v(k)$  denotes the discount factor in the  $k$ 'th year. So,

$$b(k) = \begin{cases} 1, & 0 < K(x) \leq n, \\ 0, & K(x) > n, \end{cases} \text{ and the present value of the insured amount is noted as } Z_{x,n}(K(x)), \text{ so}$$

$$Z_{x,n}(K(x)) = b(K(x))v^{k(x)} = \begin{cases} v^{k(x)}, & 0 < K(x) \leq n, \\ 0, & K(x) > n. \end{cases}$$

The expectation and the variance of the present insured amount value respectively are

$$A_x(n) = E[Z_{x,\omega}(K(x))] = \sum_{k=0}^{n-1} v^k P\{k \leq K(x) < k+1\} = \sum_{k=0}^{n-1} v^{k+1} \cdot {}_k p_x \cdot q_{x+k}$$

$$\text{and } \text{Var}[Z_{x,n}(K(x))] = E Z_{x,n}^2(K(x)) - A_x^2(n) = \sum_{k=0}^{n-1} {}_k p_x \cdot q_{x+k} v^{2(k+1)} - A_x^2(n).$$

Note, If  $n$  in the above formula is equal to the limit age  $\omega$ , the insurance is the death insurance for life, and the present expectation value of the insured amount is  $A_x(\omega) = E Z_{x,\omega}(K(x)) = \sum_{k=0}^{\omega-x-1} {}_k p_x \cdot q_{x+k} v^k$ .

In the death insurance for life, the payment of the insured amount is the late of the death year, so under the hypothesis that the insured amount is one money unit and the interest is the constant, the following relationship could come into existence.

$$A_x(\omega) = vq_x + vp_x \cdot A_{x+1}(\omega).$$

## 7. Conclusions

Empirical study indicated that through almost 20 years' development, the actuarial mathematics had gradually developed to be a professional subject from a sort of special computation method, and its application range was gradually expanding, and it had certain directional meanings and better referenced function for the practical work of insurance. Because of the length, in the article, we only introduce few most basic and simple contents about insurance, and the study and application about the integration of insurance, probability statistics and actuarial mathematics should be further discussed by us.

## References

- H.U.Gerber. (1999). *The Mathematics of Compound Interest*. Shanghai, Shanghai World Book Publishing Company. Oct., 1999. P.162-189.
- Lin, Weiran. (2006). The Parameter Estimation of Death Force Function Based on Selection-Ultimate Life Table. *Journal of Heifei University of Technology (Natural Science)*. No.6. P.972-976.
- Mi, Xiaoqin. (2004). Statistics in Life Insurance Theory. *Beijing Statistics*. No.1.
- Wangyan. (2008). *Actuarial Science of Life Insurance*. Beijing, China Renmin University Press. May, 2008. P.102-117.
- Wei, Zongshu. (2004). *Tutorial of Probability Theory and Mathematical Statistics*. Beijing, Higher Education Press. Aug, 2004.
- Zhang, Minyue. (2003). Study of Residual Life Function in Reliability Theory. *Journal of Lanzhou University of Technology*. No.5. P.139-183.
- Zhou, Jiangxiong. (2006). *The Constructing Theory of Life Table (2ed Edition)*. Tianjin, Nankai University Press. P.9-13.
- Zou, Gongming. (2005). *Survival Models and Their Estimation*. Shanghai, Shanghai University of Finance &

Economics Press. 1 Aug, 2005.

Table 1. Selection-ultimate life table

Age area	Death proportion	Survival Number at the beginning of the term	Death number in the term	Survival years in the age area	Sum of remaining life	Average remaining life at the beginning of the term
$x-x+t$	$q_{xt}$	$xl$	$xds$	$tlx$	$T_x$	$e_x$
0-1	.00463	100000	463	273	7287758	73.88
1-7	.00246	99537	745	1635	7387485	74.22
7-28	.00139	99292	138	5708	7385850	74.38
0-1	.01260	10000	1260	96973	7387758	73.88
1-2	.00093	98740	92	98694	7288785	73.82
2-3	.00065	98648	64	98617	7190091	72.89

Table 2. Use and computation of selection-ultimate life table

	$q[x]$	$q[x+1]$	$q[x+2]$	$q[x+3]$	$q[x+4]$	$q[x+5]$	$x+5$
70	.0175	.0249	.0313	.0388	.0474	.0545	75
71	.0191	.0272	.0342	.0424	.0518	.0596	76
72	.0209	.0297	.0374	.0463	.0566	.0652	77
73	.0228	.0324	.0409	.0507	.0620	.0714	78
74	.0249	.0354	.0447	.0554	.0678	.0781	79
75	.0273	.0387	.0489	.0607	.0742	.0855	80
76	.0298	.0424	.0535	.0664	.0812	.0936	81
77	.0326	.0464	.0586	.0727	.0889	.1024	82

Table 3. Function comparison analysis of life table under three hypotheses

function	even distribution	constant death force	Bellucci
$tq_x$	$tq_x$	$1-e^{-nt}$	$\frac{t \cdot q_t}{1-(1-t) \cdot q_t}$
$tp_x$	$1-tq_x$	$e^{-nt}$	$\frac{p_t}{1-(1-t) \cdot q_t}$
$yq_{x+t}$	$\frac{yq_x}{1-tq_x}$	$1-e^{-nt}$	$\frac{y \cdot q_t}{1-(1-y-1) \cdot q_t}$
$\mu_{x+t}$	$\frac{q_x}{1-tq_x}$	$\mu$	$\frac{q_t}{1-(1-t) \cdot q_t}$
$fr(t)$	$qx$	$-e^{-ntu}$	$\frac{p_x \cdot q_t}{[1-(1-t) \cdot q_t]^2}$



## Ethical Leadership and Business Decision

### Making in Contemporary Times

Aristarchus A A Nikoi

Aristarchus Nikoi 49 Day Street, Norwalk CT 06854

E-mail: a.anikoi@yahoo.com

#### Abstract

Leadership in recent times has seen increasing corporate scandals resulting in the collapse of hitherto reputable organizations, such as Enron and WorldCom. The canker of unethical leadership cuts across international boundaries, culture and societies. From business and sociological stand points, the consequences of unethical leadership behavior are insurmountable. The general objective of this paper is to look at leadership ethics and how it influences leadership decisions making and the exercise of good judgment.

It was observed that the main role of leadership is setting new direction and getting people along this direction. However, resent leadership scandals have made people see leaders with some kind of skepticism. Laws and legislations are good, but their existence has not deterred unscrupulous leaders for example in the Enron case. Dealing with this issue in a pragmatic way is critical to minimizing this situation if not eradicating it. Although situations may differ from one problem to the other, a careful review of previews decision provides some guidance in dealing with similar issues. It is my sincere believe that the model developed in this study would help develop the needed understanding of leadership ethic s and judgment, and how to deal with the current situation in our society.

**Keywords:** Ethical Leadership Business Decision Making

#### 1. Introduction

Leadership in recent times has seen increasing corporate scandals resulting in the collapse of hitherto reputable organizations, such as Enron and WorldCom. The business environment may be likened to: "In those days Israel has no king; everyone did as he saw fit" (Judges 21:25). The lack of ethical behavior of our leaders led to the promulgation and signing of the Corporate Corruption Bill into law by the President of the United States on July 30, 2002, and the subsequent approval of H.R. 1257 by the House of Representatives. The issue of leadership ethics goes beyond mere promulgation of laws. What, then, is leadership ethics? What are the effects of unethical leadership behavior? Are there any remedies to unethical leadership behavior?

This treatise will take a general view of leadership ethics and how it influences leadership decision making in all facets of life. A more critical look will be made at philosophies of ethics and how it has influenced people's way of life and judgment. Also this paper will look at current thinking on leadership ethics. The study will also identify some of unethical leadership behaviors, and suggest remedies.

##### *1.1 Objectives of the paper*

The general objective of this paper is to look at leadership ethics and how it influences leadership decisions making and the exercise of good judgment. This paper will specifically:

- (1) Discuss leadership ethics and some of the concerns in the current business environment;
- (2) Discuss some of the unethical leadership behaviors; and
- (3) Identify the effects of unethical leadership behaviors on communities and propose remedies.

#### 2. Literature review and conceptual framework

In his book, "Business Ethics," Velasquez (2006) wrote that "ethics is the discipline that examines one's moral standards or the moral standard of a society (p.10)". (p. 2)". Velasquez et al (1988) in an attempt to bring clarity to the meaning of ethics observed that ethics is not 1) the same as feelings; 2) religion; 3) following the law; 4) following culturally accepted norms or 5) science where important data could be used to make ethical choices. Christensen and Kohls (2003) observed that an ethical decision is one that the decision maker makes a decision which accords all stakeholders the needed intrinsic value.

Plato, Socrates and Aristotle and other great philosophers all sought to identify and imbued in their followers the best ethical way of life. As Hadot (2002) noted that Plato pushed his agenda of the ethical way of life through the establishment of “an intellectual and spiritual community whose job is to train new human beings (p.59). His program of training and research in the Academy had primarily an ethical perspective with the objective of purifying the mind and getting students to live in a typical philosophical way (p.65). Aristotle, according to Hadot in the same fashion founded the Lyceum, and the objective here was not so different from Plato’s idea of ethically purifying and developing the mind of his students. Aristotle, like Plato, held the view that the establishment of a school was the best way to develop a community in which the ideal life could be lived to its fullest.

This ancient idea of developing a community that imbued in its students the best ethical way of life still permeates our educational institutions. In Ghana, formal education was first introduced by missionaries whose education and training was built on the foundation of strict Christian principles. To date, churches like the Presbyterian, Methodist, Catholic, and the Ahmadya Muslim Mission have control over their schools. As someone who went through the Presbyterian school system, I experienced strong emphasis on scripture as the bedrock of my training. In the United State, where diversity is highly tolerated, it is evident that institutions such as Regent and Eastern Universities emphasize the development of Christian leadership as their main objective in education.

In an attempt to live this best way of life, we usually get caught up with the issue of battling the two major forces that always live with us; good or bad; for or against, in all facets of our human endeavors. Fromm (1997) in his book “to have or to be” explained that these two major forces struggle in the spirit of humankind dictating what goes on in our thoughts and actions. Fromm observed that overemphasis on the “having” mode which concentrates on material things has given rise to greed in the world, and believes that the “being” mode seeks to develop in us an ethical way of life.

Bass and Steidlmeier (1998) observed that “ethics of leadership rests upon three pillars: 1) the moral character of the leader, 2) the ethical values embedded in the leader’s vision, articulation, and program which followers either embrace or reject, and 3) the morality of the processes of social ethical choice and action that the leaders and followers engage in and collectively pursue. This could be presented diagrammatically as shown in fig1 below.

Figure 1.

From the above diagram it can be seen that ethical leadership is dictated by the interaction of moral character and ethical values inherent in leadership vision; and, how the society perceive and processes morality and ethics. It may therefore not be arguable that leadership ethics refers to the standard of behavior that tells us the expected actions and inactions of leaders.

Thinking about standards, I wonder which standards are reasonable, and whether they may apply in all situations. So long as the issue of situations and societal influence play critical roles in setting standards, it would be right to say that an issue which may be perceived as unethical in the United States may be ethical in Ghana for example. This holds true only on issues that are strongly influenced by culture and the law. For instance homosexuality is a lawful practice in the Netherlands; the US does not have any law regulating this practice, and in Ghana it is illegal. Additionally, bribery, nepotism, sexual and gender discrimination in any form is highly unacceptable in the United States, but in other parts of the globe such as Africa, Latin America, and the Arab states it is not a big deal. Although laws and regulations are usually propounded to influence moral behavior, the exercise of good judgment is usually left with the leadership.

Rest’s (1986) model of ethical interpersonal communication is a good source for making good leadership judgment. This model takes a linear approach, and it ensures that in moral decision making leaders take one step at a time. It has four stages altogether as shown in the diagram below.

Figure 2. Rest’s (1986 Model of Ethical Interpersonal Communication

The model seeks to guide leaders in their decision making process. It helps leaders analyze their actions and inactions and also understand how these actions and inactions impact stakeholders both negatively and positively. The first stage is moral sensitivity, it is the first stage of the decision making process, and it is at this stage that the quality of the judgment is carved. At the moral judgment stage, the actual selection of the leader’s action takes place in when consideration the impact an action would have on stakeholders. The moral motivation depicts the inspiration from which the decision is made, and finally the moral action is implemented.

It could be said from the above that leadership ethics rests solidly on the moral character and conduct of the leader and what s/he seeks to achieve. Kotter (1990) corroborated this by noting that leadership is about coping with change; developing a vision of the future along with strategies for producing the changes needed; aligning people to the vision by communicating clearly the new direction; motivating and inspiring people to move toward this new direction, despite major obstacles; also, by appealing to basic but often untapped human needs, values, and emotions (P. 104).

### **3. Ethical leadership issues**

The canker of unethical leadership cuts across international boundaries, culture and societies. It must be pointed out that the problem of poverty in developing countries to a greater extent is caused by lack of ethical leadership. Sub-Saharan

Africa has seen and continues to see political and economic instability. In Ghana, for instance, I saw the country experiencing a high degree of military adventurism in the 70s and early 80s. All these governments cited corruption and lack of equitable distribution of economic resources as the main reason for their intervention. In 1979 alone, the country saw one civilian and two military administrations.

In January 2001, a new democratic administration was sworn into office, and in his inaugural speech, president Kuffour declared zero tolerance for corruption. Both Ghanaians and the international community gave a sigh of relief and developed some confidence in this new government. It was not long before this same president in response to allegations about the corruptions in his government said that even Adam was corrupt and that corruption is as old as Adam. This perhaps was to prepare the mind of the public for what he had in store, as he himself was involved in various improprieties ranging from infidelity to illegal amassing of property. He further challenged those who accuse his government of corrupting to come out with facts when a survey by Integrity International indicated that the public has no confidence in the government.

In other countries such as Cote de Ivore, Liberia, Sierra Leon, Democratic Republic of Congo, and the current unrest in Kenya explains the extent to which immoral and unethical behavior could lead us. The genocide in Rwanda and the then apartheid system in South Africa explain the negative role unethical leader can play.

In the US, various scandals have befallen many public officials, and we seemed to be in an era where corruption by leaders has become the order of the day as there are unethical leaders in almost every profession, industry, and business. There is no single day that the dust of leadership scandal intends to settle. If it is not dubious business deals, then it is the compromise of leadership position for personal gains or sexual misconduct. Some of these unethical behaviors that come to mind are: the Clinton-Lewinsky 1998 scandal, his lying under oath, and subsequent impeachment; Gov. McGreevy's sex scandal and Gov. Spitzer's involvement in a prostitution ring. Gov. Spitzer is quoted to have said that he "acted in a way that violates his obligation to his family....."I apologize first and most importantly to my family. I apologize to the public, to whom I promised better..."I am disappointed that I failed to live up to the standard I expected of myself"

The Abramoff scandal led to the resignation of Senate Majority Leader Tom Delay after he was rebuked by a bipartisan House ethics panel for improprieties. Lewis "Scooter" Libby, Dick Cheney's former Chief of Staff was indicted by a grand jury on five counts of felony for making false statements to federal investigators. He was tried and convicted, but his sentence was later commuted by President Bush.

The private sector is no exception, as the Enron case quickly rings a bell whenever the issue of unethical leadership is raised. Ken Lay, an economist and former undersecretary at the US Department Interior, formed Enron in 1985 by influencing the merger of two companies that dealt in gas. This merger made Enron the largest natural gas company capable of supplying gas to the whole country. Enron was called the seventh largest company in the April 2001 issue of Fortune magazine. The unethical decision by the company's leadership to "cook the books" coupled with their lack of openness to the workers and shareholder led to the eventual fall of the great company.

Other unethical leadership behavior include Wal-Mart the world's largest retail organization in regards to its continues abuse of employees and discrimination; the Bhopal incident that killed thousands of Indians; the demise of Andersen, one of the world's largest consulting firms; the Watergate scandal that led to the resignation of president Nixon and Martha Stewart's incarceration are some of the high profiles of unethical leadership that have been seen in the history of the United States. Cornehis (2004), aptly puts it "What was originally proclaimed to be one or two rogue corporations and their executives enriching themselves and their friends now has become a flood of reported ill-gotten gains and financial irregularities" (p. 29) For more information on unethical practices see the appendix A.

### *3.1 The negative impact of unethical leadership*

The consequences of unethical leadership could be looked at from various perspectives, but in this paper let me limit it to business and social perspectives. From the business stand point, the consequences of unethical leadership behavior are insurmountable. The Enron case for instance led to the total collapse of a company that was then adjudged by Fortune magazine as the seventh-largest in the United States, and the most innovative company in America. A company that was seen as the best place for investment, and commanded the trust of institutional investors and individuals alike ended up shattering the dreams of these investors. Not only did the fortune of these investors go down the drain, but also the trust of the business public. It could be argued that this is not the first time people have lost their investment and that any kind of investment comes with a risk. It is however clear that most investors and businesses see risk as unforeseeable business environmental occurrences and not one that comes from corrupt and unethical leaders.

The issue of untrustworthiness that comes with the Enron case is the same with all forms of business, be they public or private. For example the Ghanaian public lost confidence in the Kuffour administration when he back tracked his earlier stance and proclamation of zero tolerance for corruption. The Abramoff scandal, Tom Delay's impropriety, and the conduct of the Bush administration in relation to the Iraq war, led to the rejection of the Republican Party in the November 2006 Congressional Elections.

On the social front unethical leadership behavior causes strife, psychological torture and crime. Taking the Enron case in perspective, it is clear that not only did twelve thousand people lose their jobs, but also their entire retirement and life savings which had been invested in Enron stocks. In the case of WorldCom seventeen thousand employees lost their jobs, and Arthur Andersen's involvement in both the Enron and WorldCom cases did not only lead to the demise of the company but also the livelihood of its employees. The fall of these three major companies, was not by mere default, but due to highly unethical behavior of its leaders. In the Enron and WorldCom cases twenty-nine families were affected and factoring the collapse of Andersen the number of families that lost income is highly incredible.

The financial cost of unethical behavior to customers is highly disturbing. For instance, in order to correct the "cooked books" WorldCom's MCI increased its rates from 5 cents to 9 cents a minute. Not only did this increase the expenditure of consumers, but also the tax payer. Yes, the tax payer because at that time the Pentagon was one of MCI's largest customers.

Regarding the impact of scandals such as Clinton-Lewinsky, Gov. McGreevy, and Gov. Spitzer, it does not only erode the public trust of leadership, but the precedence set by these ends up reshaping the societal culture of what is right or wrong. In the wake of Gov. Spitzer's scandal, some commentators made references to the Clinton-Lewinsky scandal and suggested that if Clinton who lied under oath survived his presidency then it is possible that Gov. Spitzer would survive his governorship. Although Gov. Spitzer resigned few days after the issue became public, it is dangerous to use one bad scandal such as the Clinton-Lewinsky scandal as a yardstick for measuring other scandals. It would be nothing more than a continuous lowering of our moral standards.

### 3.2 How do we reverse this trend?

I postulated here that if ethical leadership is not following the law, religion or the cultural dictates of the society as suggested by Velasquez al (1988), it would be difficult to deny the influence of morality; character; the vision of the leader, and judgment. Morality is the ability to identify what is generally accepted by the society as right or wrong. It is allowing our conscience to influence our action and inaction towards objects with which we interact. In order to make ethical decisions, I argue that leaders must: 1) understand and identify the vision/mission of the issue at stake; 2) analyze the ethical sensitivity imbedded in the issue or situation; 3) analyze the various decisions from an ethical perspective; 4) examine the inherent motivation for the needed ethical decision; 5) make a decision that has the best ethical impact on the stakeholders; and finally 6) review the decision made. This is what I call the ethical leadership decision making process model as shown below. It is my fervent belief that if this model is carefully applied it would minimize the existing canker of unethical leadership.

#### Figure 3. Ethical Leadership Decision Making Process Model

The above model suggests that in order to make good and ethical leadership judgments this process must be followed. Let us look at each of these stages in context and how critical they are to making ethical judgments.

##### 3.2.1 Leadership vision

It is common knowledge that no one makes a trip without knowing where s/he is going or expects to be, why the trip should be made, and how to get there. It is only when a leader clearly understands his or her vision, and aligns it to the situation, event or the object at stake that s/he is able to make good and ethical judgments. Analysis of the vision also includes acknowledging the all stakeholders inherent in the vision or the new direction being sought. Gov. Spitzer, for instance, promised good and ethical governance, and President Kuffour assured the Ghanaian public both during his campaign and inaugural speech of zero tolerance of corruption. However, their actions suggest that they lost sight of what they had stood for and sought.

##### 3.2.2 Embedded ethical sensitivity

This stage takes into consideration the nature and the ethical sensitivity surrounding the situation, event or the object involved. This usually involves the "how" of achieving the leader's vision which may present various scenarios. At this stage, it is important to understand the issue from the different perspectives that may be held by the various stakeholders associated with the issue. Evan and Freeman (1998) noted that stakeholders do not prefer to be used merely for organizational ends, but have the right to participate in any decision that affects them (p. 103). In business for instance, leaders are required not only to satisfy customers, but also the shareholders and employees. In the Enron case, it appears that the company's desire to impress its shareholders, did not only lead to the fraudulent misrepresentation of the financial statements, but also disregarded the interest of its employees.

##### 3.2.3 Ethical decision analysis

Analyzing the sensitivity reposed in the issue gives the leader the needed background to examine the various options available to responding to the issue at stake. Had Enron been sensitive to all the stakeholders, it would have made a decision that benefited all of them. One unethical decision eventually leads to others. Enron's decision to go into other ventures such as paper pulp, aluminum, steel, lumber and plastics did not only deviated from the company's original

vision but also made worse the company's financial woes. The critical question that must be answered during this stage of the process are; 1) How does this decision help achieve the company's vision? 2) Does this decision address the sensitivity of all stakeholders? This assertion is supported by Bowie's (1998) suggestion that in making any rules, moral savvy organizations should; 1) consider the interests of all affected stakeholders in any decision made; 2) get input from all the affected stakeholders; 3) the interests of one stakeholder should not take priority over the other; 4) establish procedures to insure that relations among stakeholders are governed by rules of justice (p.47).

### 3.2.4 Ethical motivation

The ethical motivation stage seeks to analyze the driving force behind the desire of leadership to make a particular decision. Such a decision must be devoided of any emotion, and strong emotional intelligence here is very critical. Is it the morality surrounding the decision? Is it the pressure from special interests? Is it the sense of achievement? Wherever this inspiration is coming from, it should be one that would at the end of the day satisfy all the stakeholders. In the Enron and WorldCom cases, it is clear that the selfishness of the leaders overshadowed the interest of employees, customers, and the shareholders. It is also undeniable that these various sex scandals that have befallen leaders like Gov. Spitzer was motivated by self interest.

### 3.2.5 Review the decision made

In all aspects of my life I had always identified from hindsight certain decision that I would never had made, and I believe most people would feel the same. It is very important that leaders conduct an After Action Review (AAR) especially on any decision that posed a lot of challenges. It is true that situations may vary, but a thorough AAR would equip leaders with the knowledge to approach similar situations whenever one arrives. Gavetti and Rivking (2005) supported this when they suggested that strategists' success in thinking is by "tapping the power of analogy".

### Conclusion

The main role of leadership is setting new direction and getting people along this direction. However, resent leadership scandals have made people see leaders with some kind of skepticism. Laws and legislations are good, but their existence has not deterred unscrupulous leaders for example in the Enron case. Dealing with this issue in a pragmatic way is critical to minimizing this situation if not eradicating it. Although situations may differ from one problem to the other, a careful review of previews decision provides some guidance in dealing with similar issues. It is my sincere believe that the model developed in this study would help develop the needed understanding of leadership ethic s and judgment, and how to deal with the current situation in our society.

### References

- Bass, Bernard M. and Steidlmeier, P (1998). Ethics, Character, and Authentic Transformational Leadership, *Center for Leadership Studies*, Binghamton University, Binghamton, NY
- Bowie, N. (1998). A Kantian theory of capitalism. *Business Ethics Quarterly*, (special issue 1), 37-60.
- Cornehis, J. V. (2004) Veblen's theory of finance capitalism and contemporary corporate America. *Journal of Economic issue*, 38(1), 29-58
- Evan, W. M., and Freeman, R. A. (1988). A stakeholder theory of the modern corporation: Kantian capitalism. In T. Donaldson and P. H. Werhane (Eds.), *Ethical issues in business* (3<sup>rd</sup> ed., p. 97-106). Upper Saddle River, NJ: prentice Hall.
- Fromm, Erich (1997). *To Have or To Be?* Continuum, New York
- Hadot, Pierre, (2002). *What is Ancient Philosophy?* Harvard University Press
- <http://politicalticker.blogs.cnn.com/>
- <http://www.forbes.com/2002/07/25/accountingtracker.html>
- Patsuris, P. (2002). The corporate scandal sheet. *Forbes.com*, Work/Management. Retrieved March 15<sup>th</sup> 2008, from <http://www.forbes.com/2002/07/25/accountingtracker.html>
- Rest, J. R. (1986). *Moral Development: Advances in research and theory*. New York: Praeger
- The Holy Bible. (2002). *Zondervan New International Version Study Bible*, Grand Rapids, Michigan (p.482)
- Velesquez, Manuel E. et al. (1998). A Framework for Thinking Ethically, *Issues Ethics*, Vol. 1, No. 2 (Winter 1998).
- Velesquez, Manuel E. (2006). *Business Ethics, Concepts and Cases*. *Pearson Education Inc*. Upper Saddle River, NJ

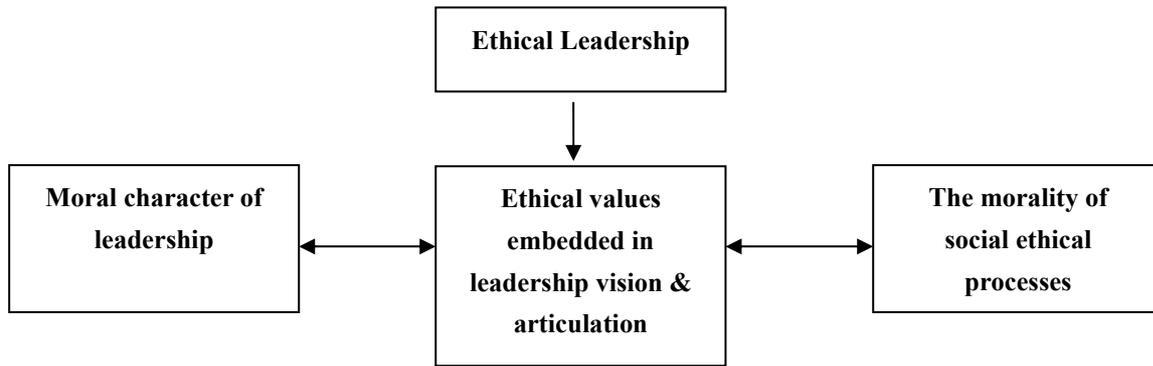


Figure 1.

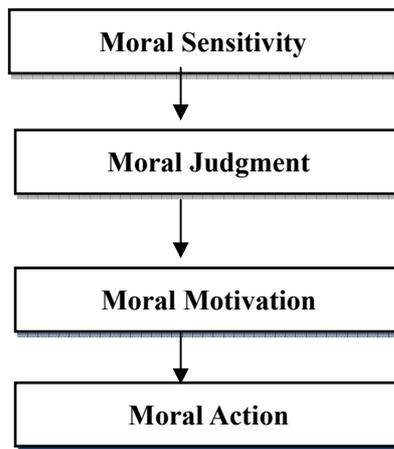


Figure 2.

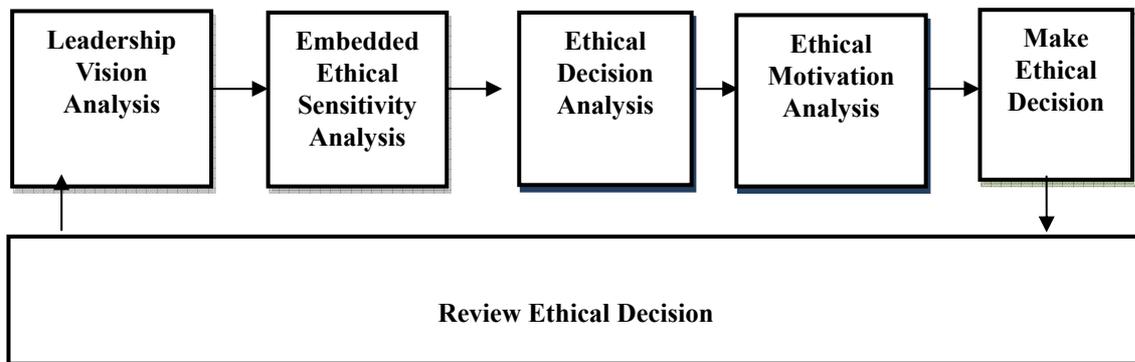


Figure 3. Ethical Leadership Decision Making Process Model

**Appendix A**  
**The Corporate Scandal Sheet**

Company	When Scandal Went Public	Allegations	Investigating Agencies	Latest Developments	Company Comment
<b>Adelphia Communications</b> (otc: <u>ADELA</u> - <u>news</u> - <u>people</u> )	April 2002	Founding Rigas family collected \$3.1 billion in off-balance-sheet loans backed by Adelphia; overstated results by inflating capital expenses and hiding debt.	SEC; Pennsylvania and New York federal grand juries	Three Rigas family members and two other ex-executives have been arrested for fraud. The company is suing the entire Rigas family for \$1 billion for breach of fiduciary duties, among other things.	Did not return repeated calls for comment.
<b>AOL Time Warner</b> (nyse: <u>AOL</u> - <u>news</u> - <u>people</u> )	July 2002	As the ad market faltered and AOL's purchase of Time Warner loomed, AOL inflated sales by booking barter deals and ads it sold on behalf of others as revenue to keep its growth rate up and seal the deal. AOL also boosted sales via "round-trip" deals with advertisers and suppliers.	SEC; DOJ	Fears about the inquiry intensified when the DOJ ordered the company to preserve its documents. AOL said it may have overstated revenue by \$49 million. New concerns are afoot that the company may take another goodwill writedown, after it took a \$54 billion charge in April.	No comment.
<b>Arthur Andersen</b>	November 2001	Shredding documents related to audit client Enron after the SEC launched an inquiry into Enron	SEC; DOJ	Andersen was convicted of obstruction of justice in June and will cease auditing public firms by Aug. 31. Andersen lost hundreds of clients and has seen massive employee defections.	Did not return repeated calls for comment.
<b>Bristol-Myers Squibb</b> (nyse: <u>BMY</u> - <u>news</u> - <u>people</u> )	July 2002	Inflated its 2001 revenue by \$1.5 billion by "channel stuffing," or forcing wholesalers to accept more inventory than they can sell to get it off the manufacturer's books	SEC	Efforts to get inventory back to acceptable size will reduce earnings by 61 cents per share through 2003.	Bristol will continue to cooperate fully with the SEC. We believe that the accounting treatment of the domestic wholesaler inventory buildup has been completely appropriate.
<b>CMS Energy</b> (nyse: <u>cms</u> )	May 2002	Executing "round-trip" trades to	SEC; CFTC; Houston	Appointed Thomas J. Webb, a	No comment.

<u>CMS</u> - <u>news</u> - <u>people</u> )		artificially boost energy trading volume	U.S. attorney's office; U.S. Attorney's Office for the Southern District of New York	former Kellogg's CFO, as its new chief financial officer, effective in August.	Although the effect [of these trades] on the company's financial statements was immaterial, we consider improper trades in conflict with the company's policies. To address this we have made changes to our organization, personnel and procedures.
<b>Duke Energy</b> (nyse: <u>DUK</u> - <u>news</u> - <u>people</u> )	July 2002	Engaged in 23 "round-trip" trades to boost trading volumes and revenue.	SEC; CFTC; Houston U.S. attorney's office; Federal Energy Regulatory Commission	The company says an internal investigation concluded that its round-trip trades had "no material impact on current or prior" financial periods.	
<b>Dynegy</b> (nyse: <u>DYN</u> - <u>news</u> - <u>people</u> )	May 2002	Executing "round-trip" trades to artificially boost energy trading volume and cash flow	SEC; CFTC; Houston U.S. attorney's office	Currently conducting a re-audit. Standard & Poor's cut its credit rating to "junk," and the company said it expects to fall as much as \$400 million short of the \$1 billion in cash flow it originally projected for 2002.	Dynegy believes that it has not executed any simultaneous buy-and-sell trades for the purpose of artificially increasing its trading volume or revenue.
<b>El Paso</b> (nyse: <u>EP</u> - <u>news</u> - <u>people</u> )	May 2002	Executing "round-trip" trades to artificially boost energy trading volume	SEC; Houston U.S. attorney's office	Oscar Wyatt, a major shareholder and renowned wildcatter, may be engineering a management shakeup.	There have been no allegations or accusations, only requests for information. The company has confirmed in multiple affidavits that it did not engage in "round-trip" trades to artificially inflate volume or revenue.
<b>Enron</b> (otc: <u>ENRNQ</u> - <u>news</u> - <u>people</u> )	October 2001	Boosted profits and hid debts totaling over \$1 billion by improperly using off-the-books partnerships; manipulated the Texas power market; bribed foreign governments to win contracts abroad; manipulated California energy market	DOJ; SEC; FERC; various congressional committees; Public Utility Commission of Texas	Ex-Enron executive Michael Kopper pled guilty to two felony charges; acting CEO Stephen Cooper said Enron may face \$100 billion in claims and liabilities; company filed Chapter 11; its auditor Andersen was convicted of obstruction of justice for destroying Enron	No comment.

<b>Global Crossing</b> (otc: <u>GBLXQ</u> - news - people)	February 2002	Engaged in network capacity "swaps" with other carriers to inflate revenue; shredded documents related to accounting practices	DOJ; SEC; various congressional committees	Company filed Chapter 11; Hutchison Telecommunications Limited and Singapore Technologies Telemedia will pay \$250 million for a 61.5% majority interest in the firm when it emerges from bankruptcy; Congress is examining the role that company's accounting firms played in its bankruptcy.	No comment.				
<b>Halliburton</b> (nyse: <u>HAL</u> - news - people)	May 2002	Improperly booked \$100 million in annual construction cost overruns before customers agreed to pay for them.	SEC	Legal watchdog group Judicial Watch filed an accounting fraud lawsuit against Halliburton and its former CEO, Vice President Dick Cheney, among others.	Halliburton follows the guidelines set by experts, including GAAP (generally accepted accounting principles).				
<b>Homestore.com</b> (nasdaq: <u>HOMS</u> - news - people)	January 2002	Inflating sales by booking barter transactions as revenue.	SEC	The California State Teachers' Retirement pension fund, which lost \$9 million on a Homestore investment, has filed suit against the company.	No comment.				
<b>Kmart</b> (nyse: <u>KM</u> - news - people)	January 2002	Anonymous letters from people claiming to be Kmart employees allege that the company's accounting practices intended to mislead investors about its financial health.	SEC; House Energy and Commerce Committee; U.S. Attorney for the Eastern District of Michigan	The company, which is in bankruptcy, said the "stewardship review" it promised to complete by Labor Day won't be done until the end of the year.	Did not return repeated calls for comment.				
<b>Merck</b> (nyse: <u>MIRK</u> - news - people)	July 2002	Recorded \$12.4 billion in consumer-to-pharmacy co-payments that Merck never collected.	None	The SEC approved Medco's IPO registration, including its sales accounting. The company has since withdrawn the registration for the IPO, which was expected to raise \$1 billion.	Our accounting practices accurately reflect the results of Medco's business and are in accordance with GAAP. Recognizing retail co-payments has no impact on Merck's net income or				

							earnings per share.
<b>Mirant</b> (nyse: <u>MIR</u> - news - people)	July 2002	The company said it may have overstated various assets and liabilities.	SEC	An internal review revealed errors that may have inflated revenue by \$1.1 billion.	This is an informal inquiry, and we will cooperate fully with this request for information.		
<b>Nicor Energy, LLC</b> , a joint venture between <b>Nicor</b> (nyse: <u>GAS</u> - news - people) and <b>Dynegy</b> (nyse: <u>DYN</u> - news - people)	July 2002	Independent audit uncovered accounting problems that boosted revenue and underestimated expenses.	None	Nicor restated results to reflect proper accounting in the first half of this year.	Our focus now is to stabilize this venture and put some certainty to its financial results. The company is evaluating its continued involvement in this venture.		
<b>Peregrine Systems</b> (nasdaq: <u>PRGNE</u> - news - people)	May 2002	Overstated \$100 million in sales by improperly recognizing revenue from third-party resellers	SEC; various congressional committees	Said it will restate results dating back to 2000; slashed nearly 50% of its workforce to cut costs; is on its third auditor in three months and has yet to file its 2001 10-K and so, consequently, is in danger of being delisted from the Nasdaq.	We have been and will continue to cooperate with the SEC and the Congressional committee.		
<b>Qwest Communications International</b> (nyse: <u>Q</u> - news - people)	February 2002	Inflated revenue using network capacity "swaps" and improper accounting for long-term deals.	DOJ; SEC; FBI; Denver U.S. attorney's office	Qwest admitted that an internal review found that it incorrectly accounted for \$1.16 billion in sales. It will restate results for 2000, 2001 and 2002. To raise funds, Qwest says it is selling its phone-directory unit for \$7.05 billion.	We are continuing to cooperate fully with the investigations.		
<b>Reliant Energy</b> (nyse: <u>REI</u> - news - people)	May 2002	Engaging in "round-trip" trades to boost trading volumes and revenue.	SEC; CFTC	Recently replaced Chief Financial Officer Steve Naeve with Mark M. Jacobs, a managing director of Goldman Sachs and a Reliant adviser.	We're cooperating with the investigations.		
<b>Tyco</b> (nyse: <u>TYC</u> - news - people)	May 2002	Ex-CEO L. Dennis Kozlowski indicted for tax evasion. SEC investigating whether the	Manhattan district attorney; SEC	Said it will not certify its financial results until after an internal investigation is	The company is conducting an internal investigation and we cannot comment on its		

<p><b>WorldCom</b> (nasdaq: WCOEQ - news - people)</p>	<p>March 2002</p>	<p>company was aware of his actions, possible improper use of company funds and related-party transactions, as well as improper merger accounting practices.</p>	<p>Overstated cash flow by booking \$3.8 billion in operating expenses as capital expenses; gave founder Bernard Ebbers \$400 million in off-the-books loans.</p>	<p>DOJ; SEC; U.S. Attorney's Office for the Southern District of New York; various congressional committees</p>	<p>completed. The Bermuda-based company is not required to meet the SEC's Aug. 14 deadline. Investors looking to unseat all board members who served under Kozlowski may launch a proxy fight to do so.</p>	<p>specifics, but we will file an 8-K on the initial results around Sept. 15.</p>
<p><b>Xerox</b> (nyse: <u>XRX</u> - news - people)</p>	<p>June 2000</p>	<p>Falsifying financial results for five years, boosting income by \$1.5 billion</p>	<p>SEC</p>	<p>The company stunned the Street when it found another \$3.3 billion in improperly booked funds, which will bring its total restatement up to \$7.2 billion, and that it may have to take a goodwill charge of \$50 billion. Former CFO Scott Sullivan and ex-controller David Myers have been arrested and criminally charged, while rumors of Bernie Ebbers' impending indictment persist.</p>	<p>We chose to settle with the SEC in April so we can put the matter behind us. We have restated our financials and certified our financials for the new SEC requirements.</p>	<p>We chose to settle with the SEC in April so we can put the matter behind us. We have restated our financials and certified our financials for the new SEC requirements.</p>

Source: <http://www.forbes.com/2002/07/25/accountingtracker.html>

A journal archived in Library and Archives Canada  
A journal indexed in Canadiana (The National Bibliography)  
A journal indexed in AMICUS  
A journal archived in National Library of Australia  
A journal indexed in APAIS (the Australian Public Affairs Information Service)  
A leading journal in business management

# International Journal of Business and Management

Monthly

Publisher Canadian Center of Science and Education  
Address 4915 Bathurst St. Unit #209-309, Toronto, ON. M2R 1X9  
Telephone 1-416-208-4027  
Fax 1-416-208-4028  
E-mail [ijbm@ccsenet.org](mailto:ijbm@ccsenet.org)  
Website [www.ccsenet.org](http://www.ccsenet.org)  
Printer William Printing Inc.  
Price CAD.\$ 20.00

