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MERCURY FINANCE COMPANY

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CASE DESCRIPTION

The primary subject matter of this case concerns asset valuation. Secondary issues could include ethics and organizational behavior. The case has a difficulty level of four to six. The case is designed to be taught in two to three class hours and is expected to require three to four hours of outside preparation by students.

CASE SYNOPSIS

Mercury Finance is one of the largest financiers of privately owned autos in the Unites States. The company had reportedly increased revenues from $73 million in 1989 to $348 million in 1995. Likewise earnings per share grew at an amazing compound growth rate of 42% over the same period. All signs pointed to a continued bright future for Mercury. That all came to an abrupt end on January 29, 1997 when the President and Chief Executive Officer announced the company had accounting irregularities resulting from unauthorized entries made to the accounting records by the Principal Accounting Officer. The company pronounced earnings will be restated. It was estimated 1995 net income was overstated by 42.68%. Management watched their stock plummet 86% when trading eventually resumed two days after the announcement. It was the largest percentage single day drop in New York Stock Exchange history, but was it adequate? After many analysts dropped research coverage, the stock continued to slide another 60% the year after the original announcement. Could analysts have projected the further decreases in Mercury's stock given the minimal amount of information available at the time?

MERCURY FINANCE

Mercury Finance is a consumer finance company involved in purchasing individual installment sales finance contracts from automobile dealers and retail vendors, originating short-term installment loans to consumers, and offering credit insurance and other related products.

Mercury was initially established as a wholly owned subsidiary of First Illinois Corporation, an Evanston, Illinois based bank holding company. The company was spun-off in 1989 in a stock distribution to shareholders. Throughout the course of the 1990's, the company increased its business lines and market share by making a number of strategic acquisitions.

Mercury's main line of business is sales finance contracts or loans. These loans range from 3 to 48 months and typically carry interest rates of 18 to 40%. They are usually monthly installment loans with late payment fees charged against accounts which are over 10 days past due. Depending on the originator of the loan, accounts 150 to 180 days past due are designated uncollectible and are charged off in the month meeting the time requirement to be deemed so. Any pledged collateral against such loans may be pursued by the company.

Mercury offers its products through a branch network of 276 offices in 28 states, concentrated in the southeastern, central, and western United States. The selection of branch sites is determined through market research including various factors such as demographics and traffic flow. Approximately 25% of these branch locations are near U.S. military installations. The remaining offices are situated in urban environments.

INDUSTRY ANALYSIS

The consumer finance business is a highly competitive one. Furthermore, Mercury's niche, the sub-prime auto lending industry, is experiencing increased supply and competition from oncoming companies including AmeriCredit, Ugly Ducking, ACC Consumer Finance, Consumer Portfolio Services, Credit Acceptance, and National Auto Credit. This increase in competition has resulted in a loosening of credit standards and a decrease in the interest rates charged on loans. While Mercury openly states it does not always offer the lowest interest rate vis-à-vis its new competitors, it fells the high quality of customer service it offers is justification for the differential.

Analysts and economists argue that demand for sub-prime auto loans will grow 7% annually over the next few years. One economist points out the following three factors that will drive growth: slow real income growth, increasing household indebtedness and bankruptcies, and employment dislocations caused by corporate restructuring. In line with this belief, Wall Street bankers underwrote $1 billion to help 25 small sub-prime auto finance companies go public and $10 billion in securitized capital.

RATIO ANALYSIS

When compared against the other sub-prime lenders, some ratios stand out. As can be seen in table 1, Mercury's gross and operating margins have been significantly higher than the industry average. This difference resulted from a lower cost of goods sold (table 2), which in this industry would include charges for non-performing loans. This suggests better loan portfolio management on behalf of Mercury. However, the accounts receivable turnover and average collection ratios suggest the industry has the better performing loan portfolios. How high can an average collection period increase without eventually having to charge off those loans, increasing cost of goods sold?

Mercury has favored debt financing to equity. Furthermore, the company's increasing average payment period combined with an increasing debt ratio should have been a cause for alarm.

RECENT DEVELOPMENTS

The January 29, 1997 announcement of discovered accounting irregularities caught Wall Street by surprise. The irregularities were the result of unauthorized entries made to the company's accounting records. Soon after the announcement, the President and Chief Executive Officer, John Brincat resigned from his position. The named successor was William A. Brandt, Jr., who is the President and Chief Executive Officer of Development Specialists, Inc., a company specializing in turnaround assistance to reorganizing companies. James A. Doyle, Mercury's Chief Financial Officer, was relieved of his duties in January, 1997.

In addition to the resulting overstatement of earnings mentioned previously, the accounting irregularities also caused Mercury to violate covenants of its senior notes and subordinated debt agreements, and also default on its commercial paper. The commercial paper market, which historically was a substantial portion of the company's sources of capital, reacted negatively to this information , cutting off Mercury to further capital. In fact Mercury's impact on the commercial paper market was so severe, it caused the Strong Funds to take extreme measures to preserve the Strong Money Market Fund's $1.00 Net Asset Value. At the time, the Strong Money Market Fund had $98 million, or 5% of its assets in Mercury paper. Strong had invested similar percentages of two other money market funds in Mercury commercial paper. The total amount of defaulted commercial paper was approximately $500 million. It does not appear investors will be receptive to new commercial paper offerings by Mercury any time soon. The violation of debt covenants also forced Mercury to suspend dividend payments for the foreseeable future. Obviously, these last two issues will have a significant impact on Mercury's capital structure and their sources of capital in the future.

Although the company has limited its financial structure options, it should be noted a $50 million credit facility was extended to MFN on February 7 to assist the company in meeting its working capital requirements. The terms of the credit line included a 7% annual rate plus a 2% penalty for any future defaults. Furthermore, Mercury had to secure the loan with all company and subsidiary property excluding equipment and real estate. Additionally, the company pledged all of the capital stock of each subsidiary borrower.

Table 1

	Industry			Mercury		
Fiscal Year Ending	**1995**	**1994**	**1993**	**1995**	**1994**	**1993**
ROE	**10.2%**	**19.6%**	**4.1%**	**16.6%**	**17.3%**	**16.8%**
ROA	**6.2%**	**6.4%**	**1.7%**	**6.7%**	**8.4%**	**8.2%**
Gross Profit Mgn.	**37.8%**	**74.9%**	**74.6%**	**77.5%**	**83.3%**	**81.3%**
Operating Mgn.	**37.4%**	**43.2%**	**54.0%**	**73.2%**	**72.6%**	**72.6%**
Net Profit Mgn.	**20.1%**	**32.1%**	**-1.5%**	**31.8%**	**34.3%**	**33.0%**
Accts. Rec. Turn.	**.69**	**4.3**	**7.3**	**.3**	**.3**	**.3**
Avg. Collection Pd.	**1689**	**1067**	**1027**	**1253**	**1374**	**1398**

Avg. Payment Pd.	**519**	**211**	**244**	**810**	**456**	**392**
Debt Ratio	**67%**	**57%**	**52%**	**82%**	**78%**	**76%**
Debt/Equity Ratio	**1.8**	**2.7**	**2.9**	**3.2**	**3.3**	**2.9**

Table 2

For the Years 1993-1995	Industry Average	Mercury Average
Net Sales	100%	100%
Cost of Goods	29%	19%
Gross Profit	71%	81%
Sell Gen & Admin Exp	54%	27%
Inc bef Dep & Amort	17%	53%
Income before Tax	8%	53%
Prov for Inc Taxes	1%	20%
Net Inc bef Ex Items	7%	33%
Net Income	6%	33%
Average P/E (1991-1995)	19.25	

Market Data

Beta (S&P)	-0.06
30 Year Treasury Bond	6.21%
Market Required Rate of Return	12%
Historical Stock Market Risk Premium	4% to 6%
Assumed Tax Rate	40%
Before Tax Cost of Debt	7.6%
Closing Stock Price	$2.125

Table 3

Income Statement

Annual Income (000$)

Fiscal Year Ending	1995	1994	1993	1992	1991	1990	1989
Net Sales	$348,327	252,472	194,396	141,876	115,538	94,768	73,297

Cost of Goods	**78,376**	**42,097**	**36,396**	**31,839**	**30,677**	**43,717**	**34,674**
Gross Profit	**269,951**	**210,375**	**158,125**	**110,037**	**84,861**	**51,051**	**38,623**
SG&A	**93,418**	**69,385**	**53,258**	**36,375**	**31,359**	**13,379**	**10,869**
Inc bef Dep & Amort	**176,533**	**140,990**	**104,867**	**73,662**	**53,502**	**37,672**	**27,754**
Income before Tax	**176,533**	**140,990**	**104,867**	**73,662**	**53,502**	**37,672**	**27,754**
Prov for Inc Taxes	**65,626**	**54,445**	**40,174**	**27,939**	**20,686**	**14,461**	**10,353**
Net Inc bef Ex Items	**110,907**	**86,545**	**64,693**	**45,723**	**32,816**	**23,211**	**17,401**
Ex Items & Disc Ops	**NA**	**NA**	**234**	**NA**	**NA**	**NA**	**NA**
Net Income	**$110,907**	**$86,545**	**$64,927**	**$45,723**	**$32,816**	**$23,211**	**$17,401**
Outstanding Shares	**172,581**	**116,080**	**115,649**	**86,077**	**42,254**	**23,017**	**17,106**
NI (after divds)	**$67,762**	**$64,490**	**$47,580**	**$37,976**	**$30,281**	**$22,060**	**$16,888**
Dividends	**$0.25**	**$0.19**	**$0.15**	**$0.09**	**$0.06**	**$0.05**	**$0.03**
EPS	**$0.64**	**$0.49**	**$0.37**	**$0.26**	**$0.19**	**$0.14**	**$0.11**

Table 4
Balance Sheet
Annual Assets (000$)

Fiscal Year Ending	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**
Cash	**$22,967**	**19,980**	**11,621**	**4,820**	**8,551**	**5,738**	**6,302**
Marketable Securities	**12,625**	**14,184**	**10,533**	**6,179**	**3,249**	**2,116**	**1,318**
Receivables	**1,195,955**	**950,902**	**744,702**	**605,450**	**503,252**	**408,657**	**326,227**
Other Current	**16,448**	**7,290**	**NA**	**NA**	**NA**	**NA**	**1,785**
Total Current	**1,477,413**	**992,356**	**766,856**	**616,449**	**515,052**	**416,511**	**335,632**
PP&E	**14,269**	**9,650**	**7,258**	**3,710**	**2,839**	**2,300**	**2,010**
Accum. Dep.	**7,247**	**6,158**	**4,513**	**2,122**	**1,724**	**1,399**	**1,113**
Net PP&E	**7,022**	**3,492**	**2,745**	**1,588**	**1,115**	**901**	**897**
Deferred Charges	**26,171**	**243**	**6,551**	**5,686**	**4,957**	**2,729**	**2,121**
Intangibles	**15,274**	**15,404**	**10,113**	**NA**	**NA**	**NA**	**NA**
Deposits & Oth Assets	**121,038**	**24,908**	**10,825**	**8,242**	**5,539**	**7,105**	**5,999**
Total Assets	**$1,646,918**	**1,036,403**	**797,090**	**631,965**	**526,663**	**427,246**	**344,649**

Annual Liabilities (000$)

Fiscal Year Ending	**1995**	**1994**	**1993**	**1992**	**1991**	**1990**	**1989**
Accounts Payable	**$174,012**	**q52,635**	**q39,076**	**29,965**	**28,277**	**19,036**	**13,813**
Income Taxes	**22,640**	**4,668**	**3,227**	**2,318**	**1,936**	**2,085**	**952**
Other Current Liab	**195,761**	**766**	**NA**	**38,262**	**28,226**	**18,335**	**13,798**
Total Current Liab	**392,413**	**58,069**	**42,303**	**70,545**	**58,439**	**39,456**	**28,563**
Long Term Debt	**958,240**	**750,820**	**561,260**	**416,500**	**363,135**	**317,131**	**262,010**
Total Liabilities	**1,350,653**	**808,889**	**603,563**	**NA**	**NA**	**356,587**	**290,573**
Common Stock Net	**176,478**	**116,080**	**115,649**	**86,125**	**42,278**	**23,041**	**17,106**

Capital Surplus	**39**	**6,384**	**2,856**	**5,274**	**422**	**1,108**	**4,399**
Retained Earnings	**154,916**	**128,157**	**75,193**	**53,692**	**62,560**	**46,681**	**32,571**
Treasury Stock	**37,137**	**23,107**	**171**	**171**	**171**	**171**	**NA**
Other Equities	**1,969**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Shareholder Equity	**296,265**	**227,514**	**193,527**	**144,920**	**105,089**	**70,659**	**54,076**
Tot Lia&Net Worth	**$1,646,918**	**1,036,403**	**797,090**	**631,965**	**526,663**	**427,246**	**344,649**

QUESTIONS AND LEARNING OBJECTIVES

1. Calculate an internal growth rate by using the external financing needed (EFN) model. Also compute the sustainable growth rate.

2. Construct pro forma financial statements through the year ending 2001, keeping in mind the company's limited capital structure options. Discuss the expected growth rate used and justify it.

3. Determine the required rate of return using CAPM and the Bond Yield + Premium model.

4. Calculate the weighted average cost of capital after tax.

5. Compute the theoretical share price using the required rates of return from CAPM and the Bond Yield + Premium method. Note any assumptions about dividends or multipliers.

6. Compare the actual stock price to the computed prices and state the appropriate investment action.

7. Discuss which stock price is believed to be most accurate and why.

MODEL OF CORPORATE ENTREPRENEURSHIP: INTRAPRENEURSHIP AND EXOPRENEURSHIP

Jane Chang, University of Malaysia - Sabah

ABSTRACT

This article extends the model of corporate entrepreneurship designed by Covin and Slevin (1991) into intrapreneurship and exopreneurship. Intrapreneurship is closely related to corporate entrepreneurship that is creation of new products within the large organization using existing employees. On the other hand exopreneurship is the generation of innovation outside the boundary of organization using external agents known as exopreneurs. The modes to intrapreneurship have been in the dispersed and focused forms (Birkinshaw, 1996). Exopreneurship process can be attained through franchising, external venture capital, subcontracting and strategic alliance (Siti Maimon and Chang, 1995). This article reviews the different conditions that trigger intrapreneurship and exopreneurship and established prepositions to identify the dissimilarity of both processes that build up corporate entrepreneurship in large organizations.

INTRODUCTION AND THE PURPOSE OF THIS PAPER

There is a number of leading research journals and published articles that present the exploratory work on corporate entrepreneurship. The research has developed a number of models of corporate entrepreneurship that focused on internally generated innovations within the organizations also known as intrapreneurship. The models are domain model of corporate entrepreneurship (Guth and Ginsberg, 1990), a conceptual model of firm behavior (Covin and Slevin, 1991), organizational model for internally developed ventures (Brazeal, 1993) and an interactive model of corporate entrepreneuring (Hornsby, Naffziger, Kuratko and Montagno, 1993). These models are centered on innovations that are generated within the organizations to revitalize largely established and bureaucratized organizations into strategically entrepreneurial performers.

Siti Maimon (1993) coined "exopreneurship" as part of the process of corporate entrepreneurship to revitalize large organization by acquiring ideas or innovation from external sources. The term exopreneurship is viewed as acquiring innovations that are outside the organization into the firm. The external innovation can be acquired as franchising, strategic alliance, external capital venture, and subcontracting (Siti Maimon and Chang, 1995). This paper proposes to differentiate the domain of corporate entrepreneurship into intrapreneurship and exopreneurship. The proposed model (figure 1)intends to identify the differences in the antecedent factors that trigger intrapreneurship and exopreneurship.

This paper starts with an explanation of the development of sourcing innovation internally (intrapreneurship) then moves to the divergence in sourcing innovation's externally (exopreneurship). Based on the model of corporate entrepreneurship designed by Covin and

Slevin (1990) with the several prepositions made, the later section of article discusses the differences in the antecedents that trigger intrapreneurship and exopreneurship

INTERNALLY SOURCED INNOVATIONS: INTRAPRENEURSHIP

Corporate entrepreneurship universally known as intrapreneurship employs internally generated innovations from employees. Corporate venture groups such as 3M and DuPont were sources of innovations chronicled with business renewal in the early 1960's despite Pinchot (1985) made intrapreneurhsip popular in the mid 1980's. Scientific research by Burgelman (1983a,b, 1984) revealed how corporate entrepreneurship should be synergized into the overall corporate strategy of any organizations that desires to diversify their innovations. He showed how traditional research and development should be transformed into new business through internal corporate venturing that grew in stages from conceptual, pre-venture, entrepreneurial and organizational. Kanter and Richardson (1991) identified four approaches to the process of corporate entrpreneurship that include pure venture capital, the new venture development incubator, the idea creation centre and employee project model. They discovered that the internal employee program yielded higher frequency of innovations

Kanter (1984) discovered that large organizations involved in internal venturing began to sponsor or became equity partners to innovative employees in the formations of new venture creations. These became the new venture companies. Burgelman (1985) suggested that new venture division exploit employees' expertise to achieve corporate growth through acquisition. This became another popular strategy for corporate growth but this approach considered entrepreneurship can be controversial. The study of corporate entrepreneurship as internally sourced innovations became popular among strategic management researchers throughout the 1980's and early 1990's (Hubbard, 1986; Kanter, Ingols, Morgan & Seggerman, 1987; Wood, 1988; Morris, Davis & Ewing;1988; Sathe, 1988; Jennings and Lumpkin, 1989; Morris and Trotter, 1990;Fulop, 1991; Carlisle and Gravelle, 1992; Hornsby et. al 1993). Morris, Davis and Allen (1994), Ginsberg and Hay (1994) and Bryon (1994) studies also supported the same idea.

Byron (1994) found that product innovation depends on the type of internal ventures. His research revealed that the innovative ideas conceived from research and development departments have the fewest successful ventures, even though they represented the greatest degree of technical diversification. Byron's work inferred those sources of idea for innovation effect the success of new ventures. Studies by Farrel and Doutriaux (1994) showed that corporate growth did not have to depend on internal development. However, external strategy such as collaboration strategies based on franchising, external venture capital, subcontracting and strategic alliance can diversify product innovation. Their findings found that external agreement had a positive impact on sales and technology competency.

DIVERGENCE IN SOURCING INNOVATION: EXOPRENEURSHIP

Aldrich and Auster (1986) recommended strategies for large and aged organizations such as subcontracting and franchising to smaller companies as corporate entrepreneurship

to make them young and viable. Starr and MacMillan (1990) examined social contracting as an approach to resource acquisition. External strategies adopted by organizations to gain competitive advantage, exploited the weaknesses of the other organizations. Therefore, corporate entrepreneurship should envelop both intrapreneurship and exopreneurship that is externally sourced ideas as proposed by S. Maimon and Chang (1995).

Internally sourced innovations may take a long time to develop and involves higher risk of failure as invented by Lengnick-Hall (1991). She suggested that other modes toward the process of corporate entrepreneurship such as joint venture and acquisition involves externally sourced relationship. This pushes the idea of internally sourced idea of corporate entrepreneurship to vie for external relationship. Perhaps factors such as the speed of innovations to meet market demands and the leverage of failure has put corporate strategist to look into other designs to the process of corporate entrepreneurship.

Recent research has recommended the use of externally sourced innovations of products or services (Jones and Butler, 1992). Cowan (1993) expressed that the mode of corporate entrepreneuring would depend on the result of market research. This implies that not all intrapreneurship programs would provide the diversity of organizations to build their competitive edge. Schumann, Prestwood, Tong and Vanston (1994) emphatically stressed the creation of innovative organizations that must include the elemental infrastructure containing both internally and externally sourced innovations. However, they did not specifically define this idea as corporate entrepreneurship.

Rice, Wilkinson and Wickham (1994) tried to link the performance of the incubator program (a form of exopreneurship to new product development) with companies that sponsored the research. The survival rate is higher than start up program with the success rate to breakout at about nine years. This suggests that exopreneurship can speed up diversity in large established organizations into the market and provide higher success rate. Study by Daniels and Hofer (1994) revealed that the success rate of university based new venture development has 80 per cent success rate of survival.

Exopreneurship as strategic alliance plays a very important linkage to Asian market. Western multinationals are finding it difficult to move into Asian market because host country makes more demands. The demands include types of technology transfer, local content and are getting less accommodating in selling natural resources at cheap prices. Consequently many opportunities were closed to Western companies. Therefore, large multinationals must be smart to use business relationship to achieve superior growth that deals in strategic alliance.

In short, compared with intrapreneurship, exopreneurship creates diversity in large companies in a speedier route to corporate entrepreneurship. For instance, DuPontt found out that intrapreneurship may take up to 15 years to commercialize certain products. Schumann et al (1994) have suggested some form of exopreneurship such as the use of contract research and development; universities; consultants or government supported centers. External venture center focuses on product or business oriented that include acquisition and establishment of joint venture. They specified licensing as a form of subcontracting because it shortens time to market and maintains technical dynamism of an industry. Gee (1994) coined corporate entrepreneurial activities that are both internally and externally sourced as corporate business renewal that includes strategic alliance. However, Siti Maimon and Chang (1995) have

proposed the creation of new venture in large organizations through franchising, subcontracting, strategic alliance and venture capital. Table 1 gives a summary of the differences in the intrapreneurship and exopreneurship.

MODEL BUILDING FOR EXOPRENEURSHIP AND INTRAPRENEURSHIP

This section outlines conceptual model of corporate entrepreneurship as a result of exopreneurship or intrapreneuship or both phenomena. The model intends to depict the differences in the antecedents for exopreneurship and intrapreneurship at the organizational level. The proposed models delineate the antecedents and the types of venture creation of a corporate entrepreneurial posture and firm performance. The proposed model is based on the model incepted by Covin and Slevin (1991) which consists of the original component. However certain components are altered for the purpose of this paper.

COMPONENTS OF THE MODEL AND THEIR INTERRELATIONSHIPS

Figure 1 depicts the proposed model of corporate entrepreneurship based on organization behavior depending on the use of internally sourced (intrapreneurship) or externally sourced (exopreneurship) innovations. The model shows the antecedents to intrapreneurship and its consequential intrapreneurial posture and the antecedents to exopreneurial posture. The three main variables comprising external variables, strategic variables and internal variables in the model and their interrelationship are discussed below.

CORPORATE ENTREPRENEURIAL POSTURE AND ACTIVITIES.

The entrepreneurial posture reflected by Covin-Slevin (1991) are risk taking, product innovation and proactive with similar descriptions upheld by Miller and Friesen (1982);Jennings and Lumpkins (1989) and Guth and Ginsberg (1990).Yeoh and Jeong (1995) argued that innovativeness involves seeking creative or unusual solutions to problems and needs. This includes product innovation, development of new markets, and new processes and technologies for performing organizational functions. Risk taking refers to the willingness of management to commit significant resources to opportunities in the face of uncertainty. Proactivenes is defined as the firms's propensity to know the what their competitive rivals are doing.

However, Kao (1991) and Churchill and Muzyka (1994) believed entrepreneurial organizations are opportunity seeking with a built in imperative to continually renew their businesses. In the opinion of the author, it is the opportunity seeking that pushes organization to be risk-taking, innovative and proactive. Yeoh and Jeong (1995) argued that the opportunistic capability of entrepreneurial organization which is an element of proactive drives firm to take advantage of the hostile environment. This opportunistic outlook of entrepreneurial organizations drives them to source for innovation outside the corporations. In short, the corporate entrepreneurial posture stems out from the opportunity seeking

capability which is manifested in two forms that is intrapreneurial and exopreneurial behaviors.

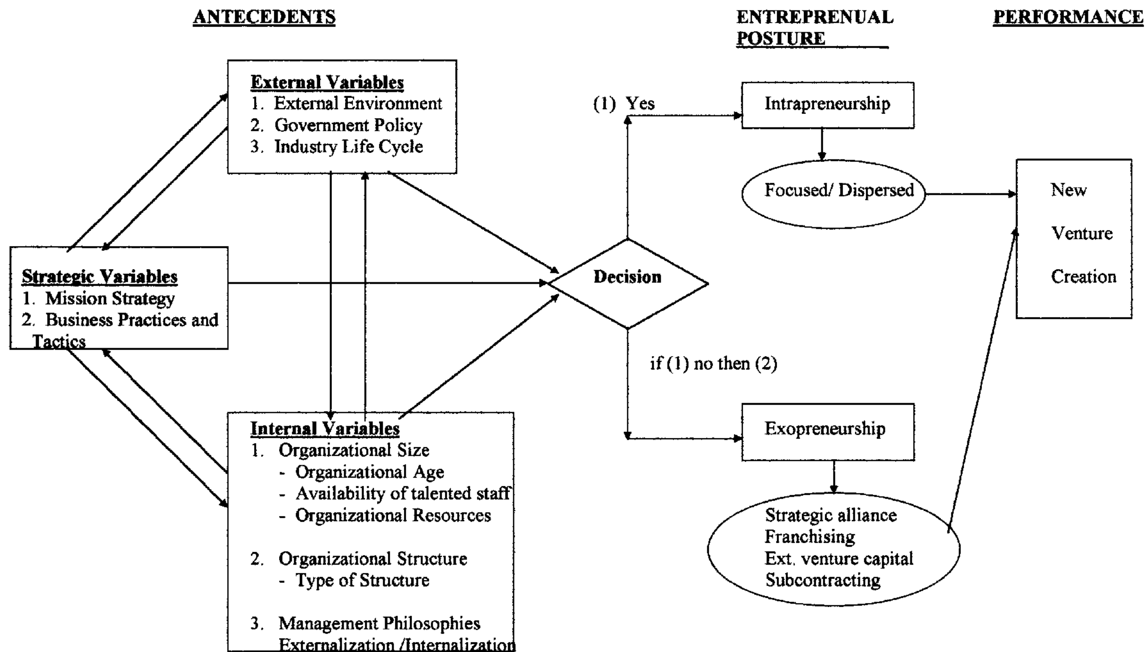

Figure 1. Intrapreneurship and exopreneurship. Model by Jane Chang

Intrapreneurial activities which are focused include internal corporate venturing also known as new venture division and formal research and development group. The dispersed intrapreneurial activities include idea creation centre and employee project model (Kanter and Richardson, 1991). Exopreneuship typifies the use of outside entrepreneurs for new venture creation such as franchisees, subcontractors, strategic alliance partners and external corporate venturing.

DIFFERENCES IN ANTECEDENTS TO INTRAPRENEURSHIP AND EXOPRENEURSHIP

Numerous research explored the antecedents that trigger intrapreneurship. However, this list does not differentiate the different conditions that cause intrapreneurship or exopreneurship. This section attempts to distinguish the differences in the antecedents that

trigger intrapreneurship and exopreneurship. The proposed model is to dispute the differences in the antecedents of both seemingly entrepreneurial behaviors based on Covin and Slevin model (1991). The antecedents categorized into three areas known as external environment, strategic variables and internal variables.

The external variables include the external environment, industries life cycle and government intervention. The strategic variables include mission strategy, firm's business practices and competitive tactics. The antecedents that comprise the internal variables are organizational size; organizational age; organizational competency, organizational structure, and management philosophies. Having argued the differences in antecedents between exopreneurship and intrapreneurship, a set of prepositions postulated for the creation of model for both entrepreneurial behaviors. The antecedents to exopreneurship and intrapreneurship are shown in table 1.

Table 1
A Summary of the difference between Intrapreneurship and Exopreneurship

Area	Intrpareneurship	Exopreneurship
1. Origin	*synergised internal creativity to create new innovations *internal employees who are willing to run the risk of commercialising new products	*synergised outside creativity to create new innovations detected by sponsoring companies or independent entrepreneurs or orgaanization search for opportunities from large companies.
2. Activities	Sponsoring organization source innovation from product champion, employee program, new venture team , new venture division, research and department	Sponsoring organization request or map out the right partner in sourcing new innovation then the commercialization process depend on the type of exopreneurial mechanisim.
3. Investment	Sponsoring organization gives seed money (budget) to source innovation internally until the new product is commercialize	The investment is dependent on the types of entrepreneurial mechanism
4. Involvement	Involved only internal employees from idea to commerciliazation of product. Depending on the types of intrapreneurship program.	Working with outside partners involvement of large organization may be minimal because it becomes a separate function of the large organization.

5 Control	**monitoring the success of intrapreneurial program depends on the procedure of organization. Easy to control because inside the organization**	**difficult to control because involved at least two different cultured organization of different systems in running organization**
6. Culture of organization	**easy to implement change because within similar organziation**	**exopreneurship results in changes therefore difficult to change the attitude of other "partner". Need to form a new culture in the process of the new venture creation**
7. Mission Strategy	**holistic mission for the whole organization.**	**Need to input part of the "partners" vision into own vision**
8. Risk	**The risk is dependent on the success of project**	**risk involves lose of goodwill besides financial risk.**
9. Cost Reduction	**cost effectiveness in management because communication within on e organization**	**cost reduction in terms of sharing and using the comparative advantage of organizations involved.**

EXTERNAL VARIABLES

The dimensions of external variables incorporate external environment, industries life cycle and the type of government intervention. These dimensions include environmental technology sophistication, the state of industry life cycle and the type of government intervention.

External Environment

Cowan (1983) stressed that corporations must understand their external environment through market research to find the nugget in their environment. The understanding of the environment would result in entrepreneurial ideas within the organizations. Indeed environmental characteristics elicit entrepreneurial behaviour on the part of organizations. High tech industries are composed of disproportionate numbers of entrepreneurial firms (Maidique & Hayes, 1984). Firms operating in uncertain environment show higher levels of innovation (Karagoszoglu & Brown, 1988; Walters and Samiee, 1990). Dynamic environment challenge organizations to take risks, be innovative and exhibit proactive behaviors (Johnston and Czinkota, 1985; Reid, 1987; Miller, Droge & Toulouse, 1988).

Hostile and Benign Environment and Industry Life cycle

Dynamism of environment includes escalating cost of technology, globalization, information revolution, product life contraction, greenism and so on have shifted organization into entrepreneurial paradigm of seizing opportunities from the enveloped surrounding. The level of hostility, heterogeneity and dynamism (Miller and Friesen, 1982, 1983;Miller, 1983),turbulence (Davis, Morris & Allen, 1991) or volatility (McKee, Varadarajan & Pride, 1989) influence the external environment. The scale on the external environment ranges from hostile to benign (Covin and Slevin, 1989; Covin, 1990). Precarious industry setting, intense and fierce competition, harsh and overwhelming business climate and the relative lack of exploitable opportunities represent hostile environment. Benign environment provides a safe setting for business operations due to the richness in investments and marketing opportunities.

Several studies indicate that the relationship between entrepreneurial posture and firm performance is moderated by environmental conditions. Firms operating in hostile environment are entrepreneurially inclined and promote higher level of firm performance (Covin and Slevin, 1989 &1994;Dean et.al, 1993; Jansen and VanWee, 1994;Stopford and Fuller, 1994; Zahra, 1991&1993; Zahra and Covin, 1995). Empirical studies by Dean et. al (1993) and Zahra and Covin (1995) revealed that firms operating under hostile environment yielded higher performance. However, there is no empirical evidence on the level of hostility to internally or externally mechanism of corporate entrepreneurship.

Baden- Fuller and Volberda (1997) discovered that strategic renewals depends on the technology of organization. They suggested that firms operating in benign competition adopt technology variation through internal corporate venturing. This mechanism supports the firm in diffusing knowledge and technology throughout the firm which reorder the organizations' core competencies thus increasing the survival rate (Fast, 1979;Block, 1982; Block and MacMillan, 1993). Organizations faced with resource rich environment, undertake core competence renewal project at lower risks by organizing change in specialized parts of the firm such as new business developments. This implies that intrapreneurship prevails in organization operating in benign environment. Fuller-Baden and Volberda (1997) viewed that both corporate venturing and specialized innovations are slow to strategic renewal and at the expanse of speed. For instance, intrapreneurship project in DuPont took up to 15 years to commercialize certain products. 3M searches for innovative approaches to reduce the time frame of commercializing products in its intrapreneurship projects (Strategic Direction, 1996). This suggests that internally generated innovations are laggard to react to high level of hostility which requires speed as a competitive edge over firms' rival. Therefore, intrapreneurship is not an appropriate mechanism to corporate entrepreneurship under this hostile environment.

Firms functioning in high level of competition and emerging industries faced with instability and uncertainty, requires speed as weapon to edge over their rivals. Firms operating in intense competition, market saturation and new emerging industries tend to use franchising, strategic alliance, external corporate venturing and subcontracting to enhance their competitive position. Studies on franchising (Anonymous, 1982, 1984, 1995; Sanghavi, 1991; Sadi, 1994; Kedia, Ackerman and Bush, 1994) used this strategic means to enhance

competitive position. Similarly subcontracting (Florida and Kenny, 1990;Goe, 1991; Scott, 1991) becomes a popular strategy under hostile condition to improve efficiency and quality of product in shorter time spent as tool to competitive edge. Strategic alliance in the form of equity and non equity partnership (Vyas, Shelburn & Roger, 1995; Glaister and Buckley, 1996) and external corporate venturing (Roberts, 1991; Hurry, Miller & Bowman, 1992; Thayer, 1993; Gersick, 1994; McNally, 1995; Rotman, 1996) are popular means of product or service innovation for firms of converging technology in new emerging industries. Under these conditions, exopreneurship becomes a prevalent mechanism to corporate entrepreneurship to outwit the competitive rivals in term of speed to deliver products or services to target market.

From the preceding arguments, it can be concluded the organizations operating in benign with rich resource environment with ample opportunities of investments have the propensity to use intrapreneurship because speed does not play a crucial role to competitive advantage. On the other hand, organization performing in hostile environment requires speed to compete with its rivals, therefore, chooses a faster route to innovation by acquiring it externally. Therefore, organization with knowledge-based competition (Chaharbaghi and Nugent, 1996) of the level of hostility can create and exploit opportunities either through intrapreneurship or exopreneurship. The author speculates the following prepositions:

Preposition 1: Intrapreneurship is prevalent in benign environment while exopreneurhsip is prevalent in hostile environment.

Preposition 2: Intrapreneurship is prevalent in growth and mature industry while exopreneurship is prevalent in the early stage of industry.

Government Policy

Studies revealed government fiscal and regulatory environments have an impact on entrepreneurial activity (Kilby, 1971; Kent, 1984). The regulatory environment depends on the macroeconomic objective of government which has indirectly favoured exopreneurial activities. In developed countries there is a growing application of government regulation to all facets of business activities which increase the demand for service functions such as accounting, legal services and insurance (Stanback, 1979; Daniels, 1985; Orchel & Wegner, 1987). These requirements caused organizations to externalize these functions. The developing countries and former Soviet block insist foreign investment must contain local market partner (Beamish, 1988; Ghazali, 1994). For instance, the Malaysian government induced the business environment into an exopreneurial one. The various new form of foreign investment include joint ventures (equity strategic alliance), technology, know-how and management agreements and licensing and patent agreement (non-equity strategic alliance), franchising and subcontracting. The regulatory policy in Malaysia aims at multinationals to exopreneurialize (externalize). In doing so, the locals have opportunities to gain access to modern technology and export markets. The author speculates that government policy plays a vital role in exopreneurial activities.

Preposition 6: Exopreneurship is prevalent in government policy that encourages agency theory while intrapreneurship is prevalent in corporate innovation policy.

STRATEGIC VARIABLES

The strategic variables in the Covin-Slevin model include mission strategy and the firm's business practices and competitive tactics.

Mission strategy

The development of mission strategy has evolved with the progress of strategic management. Covin-Slevin model embedded on strategies comprised of build, hold, harvest and divest. Scholarly research such as Gupta and Govindarajan (1982),Burgelman (1985); Hubbard (1986); Morris and Trotter (1990), Zahra (1991, 1993); Dean (1993) affirmed Covin-Slevin model that entrepreneurial postures manifested in the build and hold strategies for growth however did not specify which kind of entrepreneurial posture.

To delineate the types of mission strategy as antecedents to exopreneurial and intrapreneurial activities four strategies are classified. Integration strategies allow firms to gain control over distributors, supplier and competitors. Intensive strategies require intensive efforts to improve a firm's competitive position with existing new products and diversification strategies to diversify portfolio of products. Finally defensive strategies include joint venture, retrenchments, divestiture or liquidation.

Integration strategies include forward integration, backward integration and horizontal integration. Forward integration involves gaining ownership or increased control over distributors or retailers. An effective means of implementing forward integration for growth is franchising (Caves and Murphy, 1976; Brickley and Dark, 1987; Martin, 1988; Carney and Gedajlovic, 1991; Hoffman and Preble, 1991; Sanghavi, 1991; Huszagh, Huszagh & McIntyre, 1992) because business can expand rapidly as costs and opportunities are spread among many external individuals.

Backward integration is a strategy to seeking ownership or increased control of a firm's supplier. Horizontal integration is seeking to control over the firms competitors. Vertical integration consisting of forward, backward, and horizontal integration is reducing. The cooperation with suppliers and customers and competitors in the form of subcontracting, outsourcing and strategic alliance are gaining popularity in order to improve the competitive position of organization. (Carney and Gedajlovic, 1991; Goe, 1991; Scott, 1991; Fearne, 1994; Harrison, 1994; Mattysesens & Van den Bulte, 1994; Brown and Butler, 1995; Varamaki, 1996; Stearns, 1996).

Defensive strategies in the form of joint venture is part of the strategic alliance in terms of equity sharing. Studies on mission strategy connected to joint venture have been numerous (Harrigan and Newman, 1990; Butler and Sohod, 1995; Das and Bing, 1996; Glaister and Buckley, 1996; Stearns, 1996). The nature of this strategy requires external partnership to achieve the corporate objectives of growth.

Integration strategies and defensive strategies in the form of joint venture have the propensity to use external agencies to achieve its mission strategy. The preceding dialectic suggests that the higher propensity of a firm mission strategy to integration and joint venture , the more exopreneurial the firm's strategic posture to facilitate the achievement of growth goals. This expectation is supported by Carney and Gejadlovic's studies (1991) in franchising; Goe (1991) and Scott's (1991) in subcontracting; Fearne's (1994) in strategic alliance and Brown and Butler's (1995) in competitive strategic alliance.

Intrapreneurial behavior is expected in firms that use strategies related to the internal strength of organizations. Intensive and diversification strategies require high input of resources to improve the firm's existing competitive position. Market penetration demands higher level of marketing activities to increase market share especially in intrapreneurial behaved organizations (Nielsen, Peters and Hisrich, 1985; Dougherty, 1990, 1992, 1995; Foxall and Minkes, 1996).

The existence of internal corporate venturing and new venture division within large corporations aim to diversify the existing product portfolios (Burgelman, 1983a,b; Gee, 1994; Holt.1995). According to Gee (1994) most related diversification cost less and are more efficient because necessary resources are available within corporation and easily understood by top management (Mandell, 1971; Fast, 1978; Sykes, 1986). For instance cited in Holt (1995) horizontal diversification did not disrupt other operation by setting up divisionalized structure. In short the intrapreneurial and exopreneurial activities may be contigent upon the mission strategy exercised by organizations. The following preposition postulates how corporate entrepreneurial activities may respond to the types of mission strategy variables.

Preposition 7: Intrapreneurship is prevalent in organization exercising intensive and diversification strategy while exopreneurship is prevalent in organization exercising integration and defensive strategies.

Business practices and competitive tactics

The primary element of business strategy is always to make the organization entrepreneurially and competitive effective in the market place (Thompson and Strickland, 1987). The business strategy is the managerial action plan for directing and running a particular business unit. It is defined in terms of collection of business practices and competitive tactics. These decisions include reduction of risk, reduction of transaction cost and increasing the speed of sales to market. These expected strategies keep the organizations abreast with innovations.

Profiles of business practices and competitive tactics associated with entrepreneurial posture have been cited in Miller and Camp (1985); MacMillan and Day (1987) and Robinson and Pearce (1988). Organizations that are market (Nielsen, Peters & Hishrich, 1985; Jenning and Lumpkins, 1989; Cram, 1996) and technologically (Zahra, 1993; Zahra and Ellor, 1993; Zahra, Nash and Bickford, 1995; Zahra, 1996) driven have shown entrepreneurial posture by producing high quality products. These studies confirmed Covin and Slevin's (1991) prepositions 11-18.

Competitive strategy such as risk reduction, increase the speed of sales and reduce transaction cost are domains leading to exopreneurial activities in franchising, subcontracting, strategic alliance and external corporate venture capital.

The most common antecedent factor that lead organizations to externalization is cost minimization. Organizations franchised their business to reduce cost of capital. Studies by Martin (1988) Carney and Gedajlovic (1991),Thompson (1994) Birkland (1995), Michael (1996), Elango and Fried (1997). Birkland (1995) found that organizations capitalize on the ideology of entrepreneurship (agency) while Michael (1996) stressed that franchising is a form of minimization in conditions of low levels of human capital and business.

Generally, subcontracting lowers production costs and increases producers' profit (Kamien and Li, 1990; Rao and Young, 1994; Shenas and Derakshan, 1994; Downey, 1995; New and Payne, 1995). Large established organization moves into externalization to focus on reduction of production cost and increase their core competencies to get closer to their customer (Belotti, 1995). Subcontracting becomes popular strategy to reduce administrative burden and escape from restriction of industrial disputes (Friedman, 1977). Sharing costs with partners is the prime motivator of strategic alliance in the form of joint venture (Bijlani, 1994; Glaister and Buckley, 1994; Cauley, 1995). On the other hand, the external corporate venturing by large organization does not depend on this factor.

Another latent factor that drives large organization to obtain outside innovation is risk reduction. Capital and business risks are transferred to the exopreneurs and therefore the large organization and the exopreneurs share lower risks. Numerous studies (Shelton, 1967; Walsh, 1983' Castrogiovanni, Justis and Julian, 1993) on franchising revealed higher rate of success than independent business start up. It provides large corporation the nimbleness because of its stability, low failure rate. It has the ability to achieve individuals desire to become entrepreneurs (Mathewson and Winter, 1985; Brickley and Dark, 1987). Thus, franchising reduces risk (Combs and Castrogiovanni, 1994) as the capital cost is spread among the franchisor and franchisees. For instance Quizno Franchise encouraged its general manager to invest in its franchise after working four to six years tapping the entrepreneurial spirit of middle managers (Ruggles, 1995).

Similarly subcontracting is a popular form of exopreneurial activity of transferring risk to exopreneurs. Studies of the Japanese industrial systems (Sako, 1991; Smitka, 1992; and Easton and Aroujo, 1994) provide examples of secondary investments in technological capabilities of Japanese subcontractors. The kereitsu system lowers the risk of business integrated system. Rao and Young (1994) research affirmed that risk transference and high quality products are part of the driving force to subcontract physical distribution in risk reduction exercise. Campbell (1995) noted that large organizations reduce risk by subcontracting its specialized projects or risky maintenance project not within the capability of organization. At the same time liability can be avoided through contract (Downey, 1995 and Baker, 1995).

Strategic alliance in the form of equity or non-equity collaboration aims to reduce risk to leverage uncertainties and reduction of escalated cost (Carnavale, 1996). Study by Glaister and Buckley (1996) showed that strategic alliance is an attractive mechanism for hedging risk because neither partner bears full risk and cost of the alliance (Mariti and Smiley, 1983; Porter

and Fuller, 1986; Contractor and Lorange, 1988). The risk reduction include: spreading the risk of a large project over more than one firm; enabling product diversification reducing market risk; enabling quicker sales to market and lower investment cost.

The common antecedent that leads organization to exopreneurial activity is to expedite the sales to market. Franchising is one of the fastest mechanism of global expansion (Hoffman and Preble, 1991;) characterized by intense competition, rapidly changing customer taste. Subcontracting is a popular alternative to hasten products or services to market (Blois, 1994; Baker, 1995; New and Payne, 1995). Similarly strategic alliance decrease time to market and access to international market at a greater pace of time (Takac and Singh, 1992; Cauley, 1995; Glaister and Buckley, 1996; Carnavale, 1996) while external corporate venture speeds up the sales through the expertise of technology of the exopreneur (Shrader and Simon, 1997).

In short, the types of competitive business tactics has contingent influence over the sort of corporate entrepreneurial activities. Prepositions 8 and 9 are speculated as follows:

Preposition 8: Organizations which pursue externalization (exopreneurship) reduce risk through transferring to partners, increase speed of sales, and work on economy of scale.

Preposition 9: Organizations which pursue internalization (intrapreneuship) reduce risk by diversification of related products/customers, increase speed of technology/product into market through teamwork , and to reduce cost by increasing productivity by internal creativity.

INTERNAL VARIABLES

Following Covin-Slevin entrepreneurial model, only three out of four internal variables are included as antecedents to entrepreneurial behavior. There are top management values and philosophies, organizational resources and competencies, and organizational structure. Corporate culture is excluded as internal variable because it is seen similar to top management values.

Organizational Resources and Competence

Organizational resources and competencies variables are defined in the broadest sense which include resources, capabilities and culture (Collis, 1991; Leonard-Barton, 1992). The resources refers to the specific knowledge and the specialized assets (Lippman and Rumelt, 1982; Wernerfelt, 1984; Barney, 1991; Grant, 1991; Tvorik and McGivern, 1996). Resouces range from patents, brand names to knowledge of particular processes. Capabilities direct to the ability of making use of resources (Bartlett & Ghoshal,, 1990; Amit and Schoemaker, 1993; Whitney, 1996). Dougherty (1995) argued that culture is the cognitive decision which connects resources and capabilities.

Entrepreneurially inclined organizations are resourced-consuming in nature (Romanelli, 1987). Intrapreneurial activities such as internal corporate venturing and specialized innovation to a certain extend depend on the resource capacity of organizations (Covin & Slevin, 1991; Baden-Fuller & Volberda, 1997). Majority of organizations involved

in intrapreneurial activities are large and established which reflect their high level of resources and competencies. Though organizations with abundant resources and competencies engaged in entrepreneurial activities, this does not prevent lower resources and competent firms from being innovative. The latter externalizes via restructuring to improve its resources and competencies thus strengthens its competitive position.

In delineating the antecedents of exopreneurial and intrapreneurial behavior of firm, the operational definitions included in the organizational resources and competencies are organizational size, organizational age, technology driven, market driven and the level of corporate governance.

Organizational size

Organizational size is a liability to innovation (Aldrich & Auster, 1986; Jones & Butler, 1992). Growing in size in terms of employees, expansion of buildings and equity would cause organizations to be less flexible to respond to opportunities (Abernathy, Clark, & Kantrow, 1983; Ettlie, 1983; Dougherty, 1990). This scenario was seen in the United States during the early 1980; s where there huge number of innovative employees left large organizations to start their ventures (Hisrich and Peters, 1995). The operational definitions of organizational size are numbers of employee, sales turnover, and equity.

Evidently research (Romanelli, 1987; Laforge and Miller, 1987; Zahra, 1993) revealed that entrepreneurial strategies are influenced by company size. Therefore, an organizational aptness for corporate entrepreneurial posture is to some extent limited by its resource base. Bloodgood, Sapienza and Almeida (1995) found that organizations with more employees are significant to innovate through internationalization than smaller firms. Harrison (1994) and Gertz (1997) viewed that no company is too big to grow as correlation between company size and its growth is weak. This implies that organizations which are rich in size are abundant in resource, thus have the propensity to use intrapreneurship to product creation.

Conversely, smaller organizations which is low in resources based tend to externalize for appropriate alliance in search for opportunities. This is one of the driving forces to exopreneurship. Empirical studies revealed firms franchise their businesses as a result of resource scarcity (Oxenfelt an Kelly, 1968-1969; Hunt, 1973; Carney and Gedajlovic, 1991). The notion of resource constraints is evident by studies done by Thompson (1992) whereby company ownership is less likely to occur when units require high capital investment. Charging high royalty by franchisors at early stage of business also shows the low resources (Sen, 1993). Other motives that drive organization to seek exopreneurs related to resource constraint are transfer of complementary technology and access to specialized knowledge which firm that do not possess (Contractor and Lorange, 1988, Coffey and Bailey, 1990). This is due exopreneuring organization lack of financial resources necessary to produce them internally at the time they needed or at the level of efficiency or quality is required.

The level of research and development and market specialization moderated the influence of entrepreneurial posture (Covin & Slevin, 1991). The extent of these variables also depend on the financial status of organizations. Studies by Shrader and Simon (1997) confirmed that the success of intrapreneurship depends on internal capital resources,

proprietary knowledge and marketing knowlegde compared to independent ventures which requires external capital resources. Undoubtedly large entrepreneurial organizations exhibited higher level of R & D and marketing expenditure on internal corporate venture (Zahra, 1996)because of their posture of innovations, risk taking and proactive. However, this does not imply that the low levels of R &D and market specialization are less entrepreneurial. Smaller resource organizations have lower capacity for research expenditure therefore, adopt externalization outlook for product development.

Organizational Age

The life cycle of the organization is another yardstick to corporate entrepreneurial activities. Large sized aging organizations become less innovative at the later stages of their evolution (Chandler, 1962, 1977; Mintzberg and Waters, 1982; Adizes, 1988). Mature business are signs of aging (Goold, 1996) with slow growth, more stable technologies, resource self sufficiency and tend not to anticipate changes (Kanter, 1983). Zahra (1993) defined established companies being minimum of eight years old. The resource self sufficiency becomes an added advantage to large corporation to introduce intrapreneurial activities to achieve variation of technologies upon the existing ones. The numerous intrapreneurial research (Burgelman, 1984; Harrel & Murray, 1986; Schaffhouser, 1986; Grove, 1987; Kiley, 1987; Rutigliano, 1987; Kapp, 1988; Pla, 1989; Shatzer & Schwartz, 1991; Denton, 1993; Weaver and Henderson, 1995; Birkinshaw, 1995, 1997) have been on large, mature and established organizations.

On the other hand, young independent organizations that are resource deficit synergize their internal competencies to complement external sources for growth strategies. This combination leads to exopreneurship among young entrepreneurial organizations with large organizations with scarce technology (Contractor and Lorange, 1988). Empirical research (Ettington and Bentel, 1994) found that organizations less than ten years old are involved in strategic alliance. However, mature industries (Davis, 1976; Harrigan, 1983; Killing, 1983; Morone, 1993) are moving into joint venture activities to reduce the opportunities of merger or acquisitions because of fear of losing talented employees as a result of acquisition.

The availability of the corporate entrepreneurs

Brazeal's findings (1993b; 1996) show an organization may have potential intrapreneurs even if they do not display any overt intentions to start a corporate venture. Large established organizations have the managerial, technical and specialization and financial economies of scale to nurture the employees entrepreneurial talents into commercialized products. An example of dispersed intrapreneurship is "Enterprize programme at Ohio Bells (Kanter, 1991). Other methods of acquiring new innovations internally are through research and development (administrative entrepreneurship) and the set up of new venture development unit (incubative entrepreneurship). Both methods are known as focus corporate entrepreneurship.

Organizations involved in exopreneurship lack talented or specialized personnel to build their competencies. It is evident that the franchise system capitalizes on the agency theory of using external entrepreneurs as agent for expanding businesses (Combs and Castrogiovanni, 1994). Studies found that strategic alliance (Bijlani, 1994; Ingham and Thompson, 1994; Vyas et.al, 1995), external corporate venture and subcontracting (Goe, 1991) are means to increase skills without having to develop in house. The complementary role synergized through the combination of subcontracting, strategic alliance and external corporate venture between two or more organizations suggest that exopreneurship is a mechanism to seek talented expertise for new innovation.

One point worth noting is that exopreneurs can only be identified by innovative and established intrapreneurs before moving into exopreneurship. The availability of corporate entrepreneurs is also determined by the level of education. White (1995) found that intrapreneurs have higher level of education compared to independent entrepreneurs. Studies by Burenitz and Barney (1997) found that independent entrepreneurs who could be exopreneurs are bad managers because the latter has higher level of overconfidence.

Having argued in the preceding paragraph the extent to which organizational size, age and human resources may have contingent influence over the entrepreneurial activities to be taken by organization, the following preposition summarizes the argument presented earlier.

Preposition 10: Exopreneurship is prevalent in organizations which are young, small and lack human and finance resource while intrapreneurship is prevalent in large, mature organizations with sufficient resources.

Organizational Structure

Increase in growth, inadvertently, increase in complexity (Butler and Jones, 1992). Complex organizational structure makes flow of communication difficult which consequently brings death of an organization (Adizes, 1988). Studies found that organizational structure and form have an impact on strategy through its direct on the strategic decision making process on the growth and survival of firms (Frederickson, 1986; Priem, 1994; Rowlinson, 1995; Shane, 1996). It was shown that structure and form has domain over corporate entrepreneurship (Russell & Russell, 1992; Gielser, 1993; Mueller, 1994; Jennings and Seaman, 1994; Chesbrough and Teece, 1996). This implies that structure moderates the entrepreneurial postures of firm behavior.

Scholars found that entrepreneurial activities are positively related to firm performance with appropriate organizational structure. Burgelman and Sayles (1986) stressed the importance of fit between organization strategic orientations and its organizational structure. The organic structure encourages entrepreneurial activities (Khandwalla, 1977; Miller & Friesen, 1982; Miller, 1983) which was empirically supported by Slevin and Covin (1990). Further empirical evidence show attributes of organicity outperform mechanistic structures in terms of team participation and shared decision making (Nasi, Nasi, Banks & Embley, 1994).

The attributes of organicity studies focused on the internally generated innovations. There may be deviation in the structure of organizations that practice exopreneurship. Baden-Fuller and Volberda (1997) speculated that organizations that externalize to inter- reorder their competencies across multiple industries. This involves restructuring of organizational business. Baden-Fuller and Volberda (1997) suggested that ease of restructuring is positively related to the size of organization whereby the flow of communication tend to be top down (Prahalad & Hamel, 1990). Therefore, the author speculates that organization that externalize may have simple structure so that the strategic intent of the organization is easily related to the entrepreneurial employees as restructuring poses higher risk to large and complex organizations.

Preposition 11 : Exopreneurship is prevalent in organization with simple centralized structure while intrapreneurship is prevalent in complex and dencentralized sturcture.

Preposition 12: Organizations that practice intrapreneurship have higher level of organicity compared to organizatiosn that practice exopreneurship.

Management Philosophies

Studies have shown that management philosophies moderates the competitive strategy choices (Andrew, 1980).The choice to intrapreneurial or exopreneurial behavior depends on the decision of management's beliefs. The choice adopted by top management must fit with the strategic intent (Khandwalla, 1987). Top management values and philosophies that may affect this choice are identified in the following preposition:

Preposition 13: Exopreneurship is positively related to value top management places on externalization which brings competitive advantage to the organization while intrapreneurship is positively related to internalization values.

DISCUSSIONS

This proposed model of corporate has a number of limitations. First, is there any difference between internally generated innovations and externally generated innovations?. Looking at the performance angle there seems to be no difference as both strategies aimed to revitalize corporate growth in diversifying product portfolio. Ultimately both process of acquiring innovation converges to increase organizational performance. In theory, the origin of innovation is different, which require specific ambient environment to conceive idea to commercialization of the innovation. Intrapreneurship and exopreneurship processes require different types of contextual influences to trigger it and need different modes to achieve the new venture creation.

Another limitation of this model is organizations appear to use both processes simultaneously, thus making the differentiation of the two processes more tedious. Theoretically, intrapreneurship precedes exopreneurship to give organization the uniqueness

of the competitive advantage which earns monopolistic market while exopreneurship works on comparative advantage with other organizations to achieve organizational performance.

This proposed model assumes that organizations are ready to use either intrapreneurship or exopreneurship to cope with the changes of any kind. This means that organizations have strategic intent to change by being innovative. However, this may be an erroneous assumption as there are firms that are not entrepreneurial yet still perform well. Although corporate entrepreneurship has been applicable to large firms, this model can be applied to small firms, perhaps with some different degree of contextual differences influencing intrapreneurship and exopreneurship.

Finally this model has to be empirically tested. Do the conditions for exopreneurship and intrapreneurship differ fromm each other? To explore this issue the data needed must cover both time series and cross sections. The data has to be pooled and regressed to recognize the differences in the conditions that trigger intrapreneurship and exopreneurship. The differences tested, hopefully would give positive contribution to management decision with regards to corporate entrepreneurship.

CONCLUSIONS

Corporate entrepreneurship has been closely linked to intrapreneurship; the creation of innovation within the organization by existing employees. Exopreneurship is a new term that extends the paradigm of corporate entrepreneurship by acquiring innovation invented beyond the boundary of organization. The modes to achieve the process of exopreneurship is franchising, external corporate venture capital, strategic alliance and subcontracting. It is not the part of this article to discuss whether these modes achieve the means of corporate entrepreneurship. In conclusion the process of exopreneurship is part of corporate entreprenurship which require different conditions to trigger it than that of intrapreneurship.

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TECHNOLOGY AND THE ACCOUNTING PROFESSION'S NEW ASSURANCE SERVICES

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ABSTRACT

Technology is changing at a rapid pace, and the Accounting profession is entering an era of change as the new Assurance Services are being introduced by the American Institute of Certified Public Accountants. With expanding services come expanding competencies needed by the profession, foremost among them being strong technology skills. CPAs must understand standards and measurement criteria, threats to information systems, enabling technologies, "data about data," and the special problems of accuracy, authenticity, and security brought about by electronic commerce. New laws are being passed in states such as Utah and California, with other states soon to follow, regarding electronic commerce. The "New CPA" must choose whether to obtain the needed competencies or to hire them into the firm, staying within the parameters of state regulation as it exists today. The changing image of the CPA is that of a competent information professional who is proficient in technology and can use it to enter the new assurance service areas for current and prospective clients.

INTRODUCTION

Technology affects almost every aspect of business: how we work, how we learn, how we relate to one another, and how we organize and operate businesses. The business environment is changing every day as we become more global and more technologically dependent, and technology continues to change at dizzying speeds. We are inundated in a sea of data as we seek information that is relevant, reliable, and timely to business decision making.

At the same time that technology is providing the accounting profession with new tools to do standard tasks with increasing speed and accuracy, the development and evolution of the financial services industry has provided the CPA with new professional service opportunities outside of the typical audit/tax function. As more information is available to clients, the demands and expectations are increasing for even more and better quality services. Each of the newly identified assurance services requires expanded technological and skill based competencies to serve clients efficiently and effectively.

NEW ASSURANCE SERVICES

In response to the demands of our changing business environment and to the vast array of new technologies which are constantly evolving, the American Institute of Certified Public Accountants (AICPA) established a Special Committee for Assurance Services to study the possibility of expanding the role of the accountant. The committee was established in 1994 and released its report on the world wide web in October of 1996. The committee identified a new class of services, Assurance Services, which are defined as "independent professional services that improve the quality of information or its context for business or individual decision makers" (R1). According to Barry Melancon, AICPA President and CEO, "This means, in English, that the CPA stamp of approval, which has been traditionally applied to financial statements, can now be put on a wide range of other information and services demanded by clients." (R10). Hundreds of possible assurance services were identified, but the committee was able to select six

> **Professional service areas for immediate development and training through the AICPA: Electronic Commerce, Information Systems Reliability, Elder Care Plus, Health Care Performance Measurement, Business Performance Measurement, and Risk Assessment.**

Of the six new services opportunities, electronic commerce and information systems reliability, require more extensive use of computer knowledge and application. The remaining assurance services, while skill based, will be measurably enhanced by computer applications. Information systems reliability refers to the ability of management's internal systems to produce timely reliable financial and non-financial data for current decision making needs. Electronic commerce deals with providing data security, integrity, privacy and reliability in transactions between businesses and their customers.

To enhance the use of qualitative factors in decision making, accountants will use computer applications to identify business risk, evaluate business performance, measure the effectiveness of health case providers, and assure the comprehensiveness of elder care services. For example, after management has identified a company's risk profile computer technology can be used to develop a sensitivity analysis of the existing business environment faced by the entity. Another application of assurance services would include as assessment of how effectively a medical clinic managed their diabetic patients.

The Special Committee on Assurance Services has been replaced by the Assurance Services Committee, a permanent committee which has been granted authority to establish measurement and reporting standards. This strategy should speed the delivery of these services to the market place and avoid the deliberate nature of the more formal standard setting processes. A new continuous improvement model for determining measurements and other standards is being proposed in which standards would be numbered (version 1.0, 2.0, etc.) similar to software applications, recognizing that improvement will be coming as the environment changes or as better ways of doing things evolve.

Technology will play an important part in the standard setting process for the new assurance services. The Image and Vision Projects of the AICPA have already incorporated

electronic bulletin boards and surveys, and the AICPA web page (www.aicpa.org) displays AICPA publications, news, product descriptions, conferences, exposure drafts, and software support. Recognizing the importance of technology, the Special Committee on Assurance Services issued its final 700-page report exclusively on the web and on Compact Disc rather than in paper format. The report has hypertext links and a site map to guide the reader.

COMPETENCIES POSSESSED – COMPETENCIES NEEDED

Competencies possessed include both what individual auditors know and what individual auditors do. Accountants already display a number of valuable skills related to the new assurance services. They have knowledge about their clients' businesses from audit and other accounting services. They are known for integrity, confidentiality, objectivity, independence and high ethical standards, and concern for the public welfare. In addition, accountants are skilled in learning, personnel development, relationship management, and managing risk.

Competencies needed in the next decade were identified as being either general or specific with the latter relating to the enumerated assurance services. However, the Special Committee on Assurance Services also recognized the need for a broader set of skills and attitudes. Accountants providing assurance services must embrace information technology and a new customer focus, as well as, recognize the pace of change and the need to migrate to higher value added information activities. Competition in these service areas will arise from service providers outside the profession.

Many accountants have embraced the needed technology in their public practice, by using mobile phones, portable computers (laptop and pocket-size), portable printers, modems, scanners, and CD technology for tax library/standards references. (R8). However, the profession as a whole has some homework to do in order to be technologically, as well as professionally proficient in performing the new assurance services. Accountants are "ratcheting up" their skill to higher value added activities that include business valuation and fraud auditing in addition to the assurance services previously identified. These types of services signify both the use of higher level skills and the necessity to change with customer demand.

One assurance service, information systems reliability, will customize and verify information for decision makers, and look at information for a business and perhaps its competitors all the way down the value chain, as described by M. E. Porter in his book, Competitive Advantage. (R6) Technology can serve as a facilitator in the process, offering instant feedback through forums and other communication on the web. The old model of "error detection and correction" will be replaced with "reliability-by-design" which will establish credibility for real-time financial information and real-time assurance on databases. (R2) With off-site gathering of data electronically and on-site tools to gather evidence, sensors can be used at key checkpoints to look for unusual relationships and suspicious transactions in the database of the client as well as the databases of business partners and vendors. Reliable benchmarking databases are also needed in order to evaluate performance.

In general, accountants need to understand how technology is transforming all aspects of business and need to enhance their knowledge in the following areas: risks of electronic commerce, EDI, internet and intranet, preventive controls, security and integrity criteria for electronic information, high volume information storage and retrieval, electronic cash, digital signature, and digital communication. For example, special problems exist in the area of electronic commerce, since it transpires over public networks, most commonly the world wide web. Measurement criteria and monitoring methods are needed urgently in the world of electronic commerce due to its unregulated nature and the fact that strangers are doing business with each other electronically. There is little upon which to build a trusting relationship: no face to face communication or friendly handshake to close a deal. The nature of the world wide web is that of an untamed beast, with little or no regulation and a constantly changing environment. Issues of accuracy, authentication, privacy, and security are critical to electronic commerce. The potential for abuse requires new controls, authorizations, and assurance for both sides of an electronic transaction

To help alleviate consumer fear about doing business through electronic commerce, the AICPA and the Canadian Institute of Chartered Accountants (CICA) have joined forces to create a set of principles and criteria called WebTrust. (R3) Accountants who have been specifically licensed by the AICPA or the CICA can evaluate a web site and issue a WebTrust seal to be displayed on the home pages of those sites who have received an unqualified report. The accountant serves as an independent third party.

The entity must demonstrate the following:

1. **It actually executed transactions in accordance with the business practice it discloses.**
2. **It's controls were operationally effective.**
3. **It maintains a suitable control environment.**

It maintains appropriate monitoring procedures over such business practices and controls to ensure their continued currency and effectiveness [8].

Examples of appropriate monitoring procedures are SSL technology which uses encryption to protect customer confidential information, digital signatures, a commercial firewall, and passwords and/or smart cards.

Several states have new laws or are studying the possibility of legislation related to the digital signature aspect of electronic commerce. This legislation focuses on and defines terms and parties involved in electronic commerce transactions as well as establishing rules for transaction regulation, signature approval processes, certification authorities, and enforcement actions. Two states, Utah and California have produced significant digital signature legislation. Utah's law governs all electronic commerce transaction within the state while the California law applies only to state agency activity.

To serve his client effectively the CPA must understand both the technology permitting and the law governing the transaction. Opportunities for service exist for the practitioner who can apply his knowledge of auditing in the electronic commerce arena. In addition, audits of

new businesses, certification authorities, are required but CPAs, under the Utah law, may have competition from other accredited computer security professionals.

HOW TO GET THERE FROM HERE

The list of needed competencies can appear overwhelming. However, the CPA may choose to begin learning about technology and buying needed hardware/software as new services can be added incrementally. There are published guides available from the AICPA to aid in identifying technology issues for individual firms and to aid in creating a technology budget and plan. Another viable option is to hire technology talent as staff in the CPA firm or to bring in new technology, non-CPA partners.

The organization and structure of the profession itself may be altered. A study reviewing the status of current regulations and structure for the accounting profession in the light of changing competitive and economic conditions was published in 1997 (R7). In April of 1997, a joint committee of the NASBA and the AICPA announced its intent to allow CPAs to practice across state lines where licensing requirements are "substantially equivalent" (R9). This would allow mobility which has been denied up to this point due to the fact that individual states are responsible for licensing CPAs according to the Uniform Accountancy Act of 1995. According to Ronnie Rudd, former NASBA chair, "litigation against state boards will be a major issue for years to come because of the lack of uniformity in state statute." (R4). With electronic commerce crossing state and national lines, the "substantial equivalent" program is the first attempt to remove this barrier.

IMAGE - THE NEW CPA

The image and the vision of today's CPA is changing along with, and perhaps in direct proportion to, the changes in technology. Barry Melancon, AICPA President and CEO, has the following to say about the future of the accounting profession:

> **"The bottom line is that the CPA will be nothing like what you're probably used to. He/she will be a strategic business advisor, a trusted information professional who is comfortable with technology, and a member of senior corporate management, among other roles. In public practice, he/she will be providing new, market-driven services alongside more traditional services, such as audit and attestation. 'The New CPA,' you might say, is almost a whole new profession. It's certainly no longer your father's CPA…If you think that CPAs still work with a pencil, ledger paper, and a calculator, think again. Instead, today's CPA needs to come close to being an all-out techie."(R10)**

The AICPA has also identified competencies that CPAs in business and industry need to have, and has developed a Competency Model for the New Finance Professional. The new role involves "high-level financial analysis, business advice, and decision support rather than the traditional gathering and recording of historical financial information." (R10)

CONCLUSION

Accountants have many excellent qualities which prepare them for assurance services: integrity, objectivity, independence, confidentiality, high ethical standards, a concern for public interest, quality peer-review programs in place, knowledge about their client's businesses, and focus on internal control. According to a recent interview with Bill Gates, "CPAs are the perfect candidates to meet these companies' (small businesses) needs. They know their client's financials inside out. They're trusted. They understand how to offer cost-effective solutions to problems. You add technology skills to these skills and you've got a winning combination" (R5). One addendum to the above is needed to open the door to assurance services--acquisition of general and specific competencies.

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APPLICATION OF THE SPECIAL CONSTRAINED MULTIPARAMETRIC LINEAR PROGRAM TO SITE LOCATION

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ABSTRACT

Deciding where to locate a business is a major strategic decision that companies are faced with today. This decision could have a significant impact on the long-term success of a company. Organizations must perform a careful analysis among alternative locations and hopefully choose the best location based on the results of their analysis. However, the decision making process used in this evaluation can be very difficult as a result of the many factors that must be considered in making this decision. The purpose of this paper is to demonstrate how the special constrained multiparametric linear program model could be used for determining site location among three alternatives.

INTRODUCTION

The factors considered in making site location decisions could usually be classified as either quantitative or qualitative. Quantitative factors include measurable variables such are land/building cost and the projected cash inflows and outflows from operating the planned facility. Qualitative factors are those that are not directly measurable such as climate, schools, and recreational facilities. Presently, most organizations use two separate models to evaluate the quantitative and qualitative factors. Qualitative factors are examined using simple preference weighting and are generally used as a first screen to eliminate from further consideration those alternative locations that do not meet the minimum requirements. Once the screening process is completed, the quantitative factors can be used to determine which location would be best (Fogarty, 1989).

Based on the available models used for the purpose of site location, there appears to be the lacking of a model that would allow both the quantitative and qualitative factors to be simultaneously evaluated in a single model without converting the quantitative data to an ordinal scale. The Special Constrained Multiparametric Linear Program (SCMLP) would allow for both types of factors to be analyzed within a single model.

THE SPECIAL CONSTRAINED MULTIPARAMETRIC LINEAR PROGRAM

The SCMLP allows for the maximization of some quantitative variable subject to preferences regarding various qualitative factors. The model is expressed as follows:

Objective: Maximize ct
Subject to: $At \leq b$
$t \geq 0$
$Gc \leq d$ (Wibker, 1980).

The SCMLP model allows for the decision variables (t) to be optimized while simultaneously solving for the coefficients in the objective function (c). The $At \leq b$ represents the constraints placed on the decision variables (t). The $Gc \leq d$ represents the constraints placed on the coefficients in the objective function (c). This type of formulation allows sets of constraints to be derived which reflect preferences toward various qualitative factors while simultaneously maximizing some quantitative factor associated with the different locations being evaluated. This model suggests which of the alternative location best satisfies both the quantitative objective and the quantitative constraints. Thus, the results from this study provide valuable input to companies in making facility location decisions while simultaneously considering both quantitative and qualitative factors.

AN APPLICATION OF THE SCMLP TO SITE LOCATION

The remainder of this paper is a demonstration of how the SCMLP could be used in determining site location among three alternatives. The South Carolina Chamber of Commerce provided the data used for this demonstration. This data consisted of community profile data for three upstate communities in the State of South Carolina. These three communities were chosen based on their competitiveness to attract industry and business and the fact that this area of South Carolina is experiencing tremendous economic growth and possesses an appealing quality of life (Venable, 1992).

All three of these areas have a good population and labor force base. Both the population and labor force show positive growth trends, which should continue, in the foreseeable future. These three communities should provide for a realistic demonstration of the SCMLP.

In this example, the quantitative variable to be maximized will be the internal rate of return for each of the three mutually exclusive site locations. For the purpose of this study the following internal rate of returns (IRR) will be maximized for each of the three site locations.

SITE LOCATION	A	B	C
Internal Rate	r1	r2	r3
of Return	12%	13%	14%

The assumption is made that these rates reflect the costs associated with the derivation of an internal rate of return. These rates are quantitative in nature and reflect some dimension of cost. For example, Location A was given the lowest rate of return to reflect the highest average wages and salaries.

Based solely on an economic point of view, a company may chose location C since this site had the greatest internal rate of return. However, quality of life factors must also be considered and included in the analysis.

The qualitative variables, which serve as constraints in the model, are quality of healthcare and quality of education. This is not an all-inclusive list; however, this will provide a realistic application of the SCMLP.

Implementation of the SCMLP model requires that the company either ranks or place subjective weights on the two qualitative attributes of healthcare and education which are defined as c_1 and c_2 respectively. The sum of the weights or rankings must equal one. For the purpose of this study, the company places a simple ordering such as $c_1 \leq c_2$, which implies that the company prefers the quality of education over the quality of healthcare. However, the company believes that their preference toward healthcare should not be less than .30. This minimum weight limit placed on healthcare indicates that the company does not prefer education exclusively. The company feels that healthcare should be considered in determining site location. Constraints are derived which reflect the company's preferences toward these two factors. The constraints are presented below.

$$c_2 \geq c_1$$
$$c_1 \geq .30$$
$$c_1 + c_2 = 1$$
$$c_i \geq 0$$

c_1 = Company preference toward healthcare
c_2 = Company preference toward education

Next, an initial set of values must be derived for c_1 and c_2, which satisfy the companies set of constraints. The values chosen for c_1 and c_2 serve only as a starting point to derive an initial set of coefficients for the objective function. The range of values for c_1 is from .30 to .50 and the range of values for c_2 is from .50 to .70. The summation of c_1 and c_2 must equal one. Therefore, the following values were chosen as the initial value for c_1 and c_2.

$$c_1 = .50$$
$$c_2 = .50$$

For more complicated constraints, initial values for c_1 and c_2 may not be obvious. Therefore, other methods may need to be employed to derive an initial set of values for c_1 and c_2. However, since only two attributes are being considered, sets of constraints requiring such methods are assumed to be rare.

Next, the company places weights or some simple ordering of their preferences with respect to each factor and how the three site locations correspond. These variables are defined below.

Healthcare	Education	Location
w_1	x_1	A
w_2	x_2	B
w_3	x_3	C

The company places weights or some simple ordering of their preferences with respect to each factor and how the three facility locations correspond. Based on the data provided by the South Carolina Chamber of Commerce, the company believes that location A provides more advantages with regard to healthcare than location B and C. Location A has one hospital with 421 beds and has available 130 doctors. Therefore, the company believes that with regard to the quality of healthcare that location A has at least twice the advantage over location B, implying that $w_1 - 2w_2 \geq 0$. Also, the company believes that there is no significant difference regarding the quality of healthcare for locations B and C since both locations have similar healthcare facilities, implying $w_2 - w_3 = 0$. The summation of the x_i's must equal one. Therefore,

$$w_1 - 2w_2 \geq 0$$
$$w_2 - w_3 = 0$$
$$w_1 + w_2 + w_3 = 1.$$
$$w_i \geq 0.$$

The company believes that location A should have 10 percent more weight regarding quality of education than location C. Location C has the smallest pupil/teacher ratio; however, location A has a Technical School that provides a wide variety of training opportunities for the company. Both locations A and C have a four-year college. Location B does not have a four year college or a technical school and has a pupil/teacher ratio that is greater than location C and equal to location A. Therefore, the company believes that location C should have 50 percent more weight than location B. The summation of the x_i's must equal one. Therefore,

$$x_1 - 1.1x_3 \geq 0$$
$$x_3 - 1.5x_2 \geq 0$$
$$x_1 + x_2 + x_3 = 1$$
$$x_i \geq 0.$$

The w's and x's (w_1, w_2, w_3, x_1, x_2, x_3) are the six decision variables presented in the initial formulation of the linear programming model. The initial set of coefficients for the decision variables is derived by multiplying both c_1 and c_2 by the three internal rates of returns as presented below.

$c_1r_1 = c_{o1}$ $c_2r_1 = c_{o4}$
$c_1r_2 = c_{o2}$ $c_2r_2 = c_{o5}$
$c_1r_3 = c_{o3}$ $c_2r_3 = c_{o6}$

An initial value of $c_1 = .5$ and $c_2 = .5$ was chosen as a starting point. By multiplying booth c_1 and c_2 by the internal rate of returns, the company's initial objective function is as follows.

$$\text{maximize } .06w_1 + .065w_2 + .07w_3 + .06x_1 + .065x_2 + .07x_3$$

Next, the constraints for c_1 and c_2 must be reformulated in terms of the model. Since $cr = c_o$, then $c = c_o/r$. In this manner,

$c_1 = c_{o1}/r_1$ $c_2 = c_{o4}/r_1$
$c_1 = c_{o2}/r_2$ $c_2 = c_{o5}/r_2$
$c_1 = c_{o3}/r_3$ $c_2 = c_{o6}/r_3$

The c_i constraints can be reformulated in terms of c_o by substituting c_o/r in place of c. The constraints:

(1) $c_2 \geq c_1$,
(2) $c_1 \geq .30$,
(3) $c_1 + c_2 = 1$,

are reformulated as follows:

	(1)	$c_{o4}/r_1 - c_{o1}/r_1 \geq 0$
	(1)	$c_{o5}/r_2 - c_{o2}/r_2 \geq 0$
	(1)	$c_{o6}/r_3 - c_{o3}/r_3 \geq 0$
	(2)	$c_{o1}/r_1 \geq .30$
	(2)	$c_{o2}/r_2 \geq .30$
	(2)	$c_{o3}/r_3 \geq .30$
	(3)	$c_{o1}/r_1 + c_{o4}/r_1 = 1$
*	(3)	$c_{o2}/r_2 + c_{o5}/r_2 = 1$
*	(3)	$c_{o3}/r_3 + c_{o6}/r_3 = 1$

The following constraints must be added to assure that the values of both c_1 and c_2 remain consistent within each constraint. The addition of the following constraints cause the * constraints to be redundant.

$c_{o1}/r_1 - c_{o2}/r_2 = 0$
$c_{o2}/r_2 - c_{o3}/r_3 = 0$
$c_{o4}/r_1 - c_{o5}/r_2 = 0$
$c_{o5}/r_2 - c_{o6}/r_3 = 0$

The simplex method was used to solve this linear program to determine the optimal set of w_i's and x_i's based on the present set of coefficients (c_{oi}'s). The objective function is subject to the constraints placed on the w_i's and x_i's. The formulation of the special constrained multiparametric linear program is presented below.

$$\text{maximize} \quad .06w_1 + .065w_2 + .07w_3 + .06x_1 + .065x_2 + .07x_3$$

subject to

$$w_1 - 2w_2 \geq 0$$
$$w_2 - w_3 = 0$$
$$w_1 + w_2 + w_3 = 1$$
$$x_1 - 1.1x_3 \geq 0$$
$$x_3 - 1.5x_2 \geq 0$$
$$x_1 + x_2 + x_3 = 1$$
$$w_i, x_i \geq 0$$

The simplex method was used to solve this linear program to determine the optimal set of w_i's, and x_i's. The optimal decision variables are presented below.

$w_1 = .50$ $\quad x_1 = .39759$
$w_2 = .25$ $\quad x_2 = .240964$
$w_3 = .25$ $\quad x_3 = .361446$

Next, the six decision variable values are used as the objective function coefficients in a linear programming model to determine an optimal set of c_{oi}'s. The objective function is subject to the constraints placed on the c_{oi}'s. The objective function and constraints are presented below.

$$\text{maximize} \quad .50c_{o1} + .25c_{o2} + .25c_{o3} + .39759c_{o4} + .240964c_{o5} + .361446c_{o6}$$

subject to

$$c_{o4}/.12 - c_{o1}/.12 \geq 0$$
$$c_{o5}/.13 - c_{o2}/.13 \geq 0$$
$$c_{o6}/.14 - c_{o3}/.14 \geq 0$$
$$c_{o1}/.12 \geq .30$$
$$c_{o2}/.13 \geq .30$$
$$c_{o3}/.14 \geq .30$$
$$c_{o1}/.12 + c_{o4}/.12 = 1$$
$$c_{o1}/.12 - c_{o2}/.13 = 0$$
$$c_{o2}/.13 - c_{o3}/.14 = 0$$
$$c_{o4}/.12 - c_{o5}/.13 = 0$$
$$c_{o5}/.13 - c_{o6}/.14 = 0$$
$$c_{oi} \geq 0$$

The simplex method was used to solve this linear program to determine the optimal set of c_{oi}'s based on the present set of coefficients (w_i, x_i). The results are presented below.

$$c_{o1} = .036 \qquad c_{o4} = .084$$
$$c_{o2} = .039 \qquad c_{o5} = .091$$
$$c_{o3} = .042 \qquad c_{o6} = .098$$

The new c_{oi} values were used as the objective function coefficients in a linear programming model to determine an optimal set of w_i's and x_i's. The objective function is subject to the original constraints placed on the w_i's and x_i's. The value of the decision variables (w_i, x_i) did not change from their previous values. Therefore, the simplex algorithm indicates that an optimal set of coefficients (c_{oi}) and decision variables (w_i, x_i) have been found.

The c_{oi}'s were converted back to the original rankings on c_1 and c_2. The results were:

$$c_1 = .30 \qquad c_2 = .70$$

Next, the optimal solutions to c_1, c_2, w_i, and x_i are substituted in the following equations.

Site A: $w_1c_1 + x_1c_2 = FLA$
Site B: $w_2c_1 + x_2c_2 = FLB$
Site C: $w_3c_1 + x_3c_2 = FLB$
FLA = .50(.3) + .3975900(.7) = .4283 *
FLB = .25(.3) + .2409640(.7) = .2437 *
FLC = .25(.3) + .3614469(.7) = .3280 *

FLA is the weighted proportion placed on facility location A given the company's preference for education and healthcare along with their perception of how location A ranks with respect to these two attributes. Accordingly, FLB and FLC are defined similarly. Additionally, these percentages are subject to the maximization of the company's expected rate of return for each location.

These percentages indicate a tendency toward location A since this location had the largest percentage at .4283. Location C had the next highest percentage at .3280 while location B would be the least likely choice with a percentage of .2437. The results of this study would indicate a preference for location A.

SUMMARY AND CONCLUSIONS

This research demonstrates that the SCMLP model can be used to assist companies in making site location decisions. The model allows for the maximization of the quantitative variables subject to preferences regarding various qualitative factors. This model provides a company with a weighted proportion for at least one of the locations under consideration. This study was limited to three site location alternatives and two qualitative factors. However, this study could be expanded to include numerous site alternatives as well as numerous qualitative

factors. Also, the application of this model would apply for comparison of site locations not only domestically, but internationally as well.

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ROYAL FOODS

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CASE DESCRIPTION

Royal Foods is best used in any course where the students have a solid background in financial forecasting and capital structure. This suggests that it is probably best used in an upper-level undergraduate or graduate course in finance, and we would rate its difficulty from four to six. For a professor interested in finance issues, the case is close to "Where do you want to go today?" The primary objective is to provide students the opportunity to investigate financial forecasting and debt-equity decisions in the face of ignorant, fearful but influential stockholders. Secondary objectives include the opportunity to explore the topics of capital budgeting, sensitivity/scenario analysis and valuation. And while the case takes the firm's dividend situation as a given, an instructor could even use the case as a vehicle for addressing dividend policy.

The amount of class time and student preparation required depends on 1) the topics the instructor chooses to cover and 2) whether students have access to the template that accompanies the case. Allow two classes to adequately cover the primary objectives. Student preparation should run eight to ten hours without the template. Considerably less with it.

CASE SYNOPSIS

The case is based on conversations with an investment banker and information on the firm and industry obtained from various issues of Value Line. Names have been altered and also the numbers, though they remain true to the actual situation.

Royal Foods is in decline primarily due to a reluctance to make changes--a mentality encouraged by the attitude of the Royal family, the major stockholders. The corporate culture is changing, however, since a new CEO began appointing "outsiders" to key executive positions. The company is poised to undertake a number of large expenditures that appear crucial to its long-term health. The CFO must estimate financing requirements for the next five years and make a recommendation on how to raise any needed funds. Her analysis may well violate financial traditions that the Royal family holds dear. These include maintaining a "war chest" of cash reserves and a total reliance on internal financing. Management is concerned that it will be unable to convince the Royals, who are generally ignorant of the company's operation, that the changes are in their best interest. It must, therefore, not only devise a financial plan but also construct simple but convincing arguments in order to sell the plan to the family.

A key aspect of the case is that recommendations must not only be developed, they must also be defended. Thus Royal Foods is especially useful for student presentations. It is interesting that the "target audience" of these presentations is quite different. Some situations involve the CEO. In others the audience is a group of anxious but potentially influential stockholders.

The case has a template with versions in Excel and Quattro Pro. The template contains pages relating to all the computational questions listed in the Instructor's Notes and is useful for performing sensitivity/scenario analysis so characteristic of real-world forecasts.

The Instructor's Notes contains a number of suggestions on how the case might be used.

INTRODUCTION

"Change has never come easy at this company, " concedes Fred Dryer the president and CEO of Royal Foods to Diane Benning, its chief financial officer. "The Royal family knows remarkably little about the company and, I suppose, ignorance breeds a fear of change. I want your report on my desk by next week and if it means altering our capital structure, then so be it. Keep in mind that the board is no longer so dominated by tradition and I believe we can sell any well thought out proposal, even one that hasn't been tried since the founding of the company. Still, I'd appreciate any arguments--financial or otherwise--that I can use when I make my case. The influence of the Royal family has diminished but it is certainly still there. And one more thing. Take our dividend situation as a given. My guess is that any changes here are likely to seriously upset the Royals. We need to keep in mind the primary objective: support for our investment projects. "

SOME HISTORY AND SOME MISTAKES

Royal Foods was founded nearly 80 years ago in Richmond, Va. by Phillip Royal who was encouraged by the results of taste tests conducted with friends on his home-made peanut butter and cookies. Though this "market research" was hardly scientific, it certainly was accurate. It wasn't long before Royal developed an amazing name recognition and a "large and loyal" set of customers in the South. Over time it gradually expanded into 37 states, though the South remained its strongest market.

For the most part it has been relatively easy to manage Royal and generate a profit since there was little competition. The company could, for example, raise prices whenever the cost of its 30 million pounds of peanuts and other materials rose. Sure, management had to pay some attention to costs and it did generally keep its manufacturing facilities up-to-date. It was also important to introduce new products and penetrate new markets. And from time to time Royal would do just that.

Yet Royal was always slow to move and never did seem especially tuned in to changes in consumer preferences or the threat of potential competition. The firm's sluggishness mainly reflects the influence of the Royal family, always the firm's largest stockholders who currently own about 45 percent of the 36 million shares.

No family member has seriously been involved in running the company after Phillip died, and their behavior epitomizes an era when family businesses ran themselves and family members enjoyed the fruits. For example, Royals who have sat on the board always listed their occupation as "private investor." And when one visitor a few years ago contacted Adam Royal, a grandson of Phillip, at home and asked if Adam could be reached at work, he was

told: "No sir, Mr. Royal doesn't work." Even today some Royals admit that they are "embarrassingly ignorant" of the company's financials.

Not surprisingly this attitude infected the firm's corporate culture. As long as the major stockholders were satisfied and the environment in the snack-food industry was benign, management was suspicious of and reluctant to change. Unfortunately for Royal, the environment turned about a decade ago and suddenly the $20 billion snack industry began playing major league hardball.

Fueled by Americans' growing taste for such foods, companies aggressively entered the industry, sharply expanded product lines, and entered markets previously considered to be off limits. A good example of a "snack attack" is Frito Lay's "invasion" of the South-- Royal's major market-- not only with items like corn chips but also with crackers and cookies, two key items in Royal's product line. It is quite clear to even the most casual observer that Royal is no longer the undisputed king of the southern snack-food industry.

Royal attempted to respond to the altered business environment and did, in fact, implement a number of successful changes like introducing family-size packages for grocery stores, and Royal Paks, a bulk item suitable for outlets like Sam's Clubs. Still there were many mistakes most, it seems, caused by the firm's inability to move quickly enough. For example, while it was the first to develop products free of animal fat and tropical oil, it was six weeks late to Nabisco in getting these products to market. And a few years ago it had a commodity-purchasing disaster that costs Royal millions. In the face of strong snack-food demand, Royal decided to sharply increase its purchase of peanuts and offered premium prices to peanut sellers. Unfortunately, by the time the contracts were complete and the peanuts delivered, industry demand turned stale. The result was warehouses crammed with peanuts bought at extremely high prices.

The impact of all these problems on the company's financials is not surprising. Net income has declined for the last three years and dividends have not increased in four. Sales growth has been below industry norms and, for the first time in over five decades, actually declined in the most recent year, 1995. And, perhaps most importantly, the price of the firm's stock is $17 per share, virtually near its ten-year low. Still, there are some financial bright spots. The firm is awash in cash and is beholden to no bank. In a sense, therefore, Royal is something of a paradox, a rich and debt-free company in financial trouble.

OUTSIDE HELP

For many years Royal took considerable pride in its "homegrown management." Executives nearly always came from inside the company and Dryer is no exception. Only 45, he has worked at Royal since graduating college and was named to the firm's top spot two years ago. One of his first moves was to surround himself with "outsiders" since he deemed it "crucial" to cultivate a new mentality at Royal, a job he concluded would be "nigh near impossible" unless he went outside Royal for help. Key hires in top management included Robert Ekland, formerly of Nabisco, as Chief Operating Officer, and Margaret Sills who left Pepsico to become Director of Marketing.

Perhaps his most significant move was to hire Price, Boggle & Co. (PBC), a New York-based food-industry consulting firm, to "investigate and evaluate" Royal's operations. Nothing was off limits to the consultants and they thoroughly examined such areas as Royal's vending operations, delivery systems, manufacturing facilities, administrative staff, computer system, and marketing strategies. PBC's analysis took nearly six months, and another month was spent reviewing their findings and recommendations with Royal's management.

Key suggestions that require additional capital spending include the following.

1. **Build one manufacturing facility in the Midwest and one in the West in order to be closer to these important markets. These facilities will reduce distribution costs and increase customer service.**

2. **Replace nearly 10,000 vending machines that clearly have "seen better days." This equipment has a zero book value and a "negligible" market value.**

3. **Implement a new computerized mixing system into the manufacturing process. This will allow ingredients to be mixed more efficiently and will reduce costs by lowering raw material waste.**

4. **Develop a fully integrated information system which will enable Royal to organize more quickly and tap inputs from its 2,500 sales representatives, who brush elbows with customers daily.**

Royal will implement nearly all of PBC's recommendations including the ones listed above. The suggestions are sound and--as Dryer put it--"simply represent common sense for the snack-food industry. They should've been done years ago."

Really, there was only one surprise in PBC's report. PBC's market research indicated that Royal has a significant amount of brand recognition and customer loyalty. Apparently the snack attacks have not damaged Royal's customer base as much as management thought. In fact, with a more aggressive and "modernistic" advertising campaign PBC was "confident" that Royal could regain much of its lost market share, especially in the South.

Encouraged by this and convinced that poor marketing has hurt sales, Dryer put the firm's advertising budget up for grabs and three months ago fired its long-time advertising agency, Butler and Coggins. Royal's account was placed with The McNair Group, an Atlanta-based firm whose ideas seemed more in tune with the areas that Royal wants to reach. They recommended, for example, that Royal aggressively market in the Carolinas by allocating more of its TV and radio advertising budget to this area and by obtaining a NASCAR sponsorship.

FUTURE PROSPECTS

Dryer is an optimist by nature and is firmly convinced that the future looks "extremely bright." While most Royal executives wouldn't go this far, nearly everyone expects sales growth to exceed inflation for the next few years as well as improvement in the firm's operating

margin [= (EBIT + dep)/sales]. Apparently outside observers agree. Two industry analysts, one from Merrill Lynch and one from Interstate/Johnson Lane, consider Royal to be a "good buy" at its present (late 1995) price of $17 per share.

Writes Barry Johnson of Merrill Lynch:

> **"We've always thought that Royal had a lot going for it: top-notch products, brand loyalty and a solid R&D department, to name a few. We haven't recommended this stock in years mainly because while times change Royal's management never would. In our opinion, Fred Dryer's appointment in 1994 began a new and improved period for Royal. We've analyzed what he intends to do and couldn't agree more. Our best guess is sales growth of 8 percent in 1996, 5 percent in 1997, and after that increases in line with inflation which we estimate to be three percent a year. Not bad for a firm whose sales declined in 1995. More importantly, Royal will make a number of long-overdue changes which will improve efficiency, and we predict that its operating margin will reach 16 percent--and likely even higher-- by 1998."**

Marilyn Carter of Interstate in a separate analysis agrees.

> **"Interstate hasn't reported on Royal in years mainly because there was nothing substantive going on. This is no longer the case. Royal is making numerous and meaningful changes in such areas as distribution, information, and marketing. For the first time in over a decade, management is willing to take "prudent risks" that should ultimately increase sales and cash flow. Interstate estimates sales growth of 7 percent for 1997 and 1998. Most of this simply represents 'reclaiming stolen property' that was lost when competitors invaded important markets a few years ago."**

FINANCIALS

Dryer realizes that implementing PBC's recommendations will require time and quite a bit of capital. Management projects outlays on capital equipment of $85 million in 1996, $70 million in 1997, $40 million in 1998, and $25 million in both 1999 and 2000. These estimates include $25 million per year for "normal equipment replacement." And the expected above-average sales growth may also require financing. All this suggests that Royal could well have to raise funds externally for the first time in decades. Dryer has instructed Benning to develop a five-year forecast and estimate the amount of external funds required, if any. In addition he wants Benning to make a recommendation on how to raise any needed funds.

In preparation for the analysis, she has gathered information on various publicly-traded firms in the food processing industry that top management perceives, at least to some extent, as competitors of Royal (see Exhibit 3). Benning also thinks that the outside analysts have "done their homework" and "fully agrees" with Merrill Lynch's best-guess sales estimates. Discussions with the marketing and sales departments convince her that Royal is very unlikely to lose sales, and Royal's executives estimate that a lower limit to sales growth is the rate of inflation.

There is no question that Royal's operating margin will improve if it implements the changes recommended by PBC; and management predicts a 12 percent operating margin for 1996, 14 percent for 1997 and 16 percent after that. These numbers are considered to be "somewhat conservative" especially for 1998 and beyond. In addition, at worst management expects margins about one percentage point lower than these each year.

Nearly all the projected capital spending is considered to be essential and Benning knows that management "would be reluctant to cut it by more than $4 million a year even in bad times." The firm's production engineers have also informed her that production techniques in the industry may change sometime in the future, and the previous estimates do not consider this possibility. The impact is hard to gauge though it is probably at least three to five years away assuming it even occurs. No one really has a good idea of how much money this would require, though Benning "guesstimates" $5 million per year in 1999 and 2000, with $8 million an upper limit.

Though it is a bit premature to finalize the details of any new financing, Benning has had conversations with two investment-banker friends. They both think that this is an "opportune time" to be raising capital, and that "raising what you want, within reason, should be no problem."

If Royal chooses to borrow, they recommend a private placement since there are a number of insurance companies and pension funds with cash to lend, and the investment bankers believe that Royal can get extremely favorable terms.

Based on their advice, Benning decides to assume a 7 percent loan rate, with any needed funds borrowed over the next two years. Further, she will assume that the loan would be "interest only" until 1999 and then principal would be paid in equal amounts over the next 15 years (1999-2013). She likes the idea of being able to defer any principal payments until then since it will give Royal adequate time to implement all needed changes and, thus, it is likely that the firm's cash flow will be much stronger. Another plus is that Benning should be able to obtain a drawdown arrangement with the lenders. That is, the loan could be structured in such a way that Royal would receive cash "as needed" which would minimize the interest expense.

Her banker friends also think that it would be "no problem" to sell additional shares of stock at $17, the current market price, with a flotation cost of $.50 per share. Further, the stock could be sold over the next two years if so desired. This has some appeal to Benning since it means, much like the loan, that Royal would only have to sell additional shares as cash was needed.

ROYAL OPPOSITION

Benning became CFO about a year before Dryer was hired and, frankly, her duties to this point have been pretty boring. Dryer's predecessor, Scott Barnett, had consoled her on the importance of "keeping the major stockholders happy" and gave instructions to "avoid debt and maintain a cash balance at least equal to a year's dividends." And she has spent, or so it seems to her, considerable time in working capital management and assuring members of the Royal family that their dividends were "secure."

This assignment is different. Royal has not raised funds externally in decades, has never had even one dollar of interest-bearing debt, and generally maintains a war chest of cash reserves. These are financial traditions established by Phillip Royal and deviating from them is sure to generate opposition from the Royal family. In fact, Benning received an e-mail from Carter Royal a few days ago in which he stated that "I wish to be informed of any financial plans that are not consistent with the tradition of Royal Foods."

Benning's thinking is that these financial traditions not only have hurt the value of Royal's stock but make it a potential target for some type of buy-out. When she mentioned all this to Toby Grether, the firm's Senior Vice President, he urged her to

> **"flesh out these arguments. I think Fred will need all the help he can get. I think he underestimates the opposition that he could get from the Royal family. If they wanted to mobilize they could certainly influence--and maybe even dictate-- policy. True they have not and are not involved with the company. But that's because management knew what they wanted: steady and increasing dividends, assurances that the company was stable, and an adherence to family traditions. Management never attempted to rock the boat; and, hey, they were happy since they got their paychecks. But this is different. Fred wants to spend money. Big money. We know his spending makes sense but I think he's going to have to convince the Royal family. Oh, it's not the spending that'll bother them. It's the financing. I mean, if the Royals thought we could do what we want without going to the capital markets and without threatening their precious dividends, you wouldn't hear a peep out of them. But once they hear 'outside funds' they're going to worry. 'Borrowing' implies 'risk' to them and 'new equity' means 'outsiders' and a reduction in their family's interest since none of them has the cash to buy shares. "**

The content of Grether's remarks didn't especially catch Benning off guard, but his emphatic manner certainly did. She decided to approach a number of other company executives in order to get a better feel for the attitude of the Royal family. Benning's investigation lead her to conclude the following.

- **All the family members understand that the company is operating in a fiercely competitive environment.**
- **All are aware that the company's financials have deteriorated, though most are not familiar with specifics and have "nary a clue" as to what it would take to improve matters.**
- **Older members would like to maintain the company's financial traditions as well as the family's controlling interest in the firm.**
- **Younger members wouldn't mind selling the company, have no particular allegiance to its history, and seem especially concerned that the company's stock has significantly under performed the overall market in recent years.**
- **Most of the Royals are disappointed--though not upset--that there hasn't been a dividend increase in recent years. However, any proposal that appears to**

jeopardize the present dividend of $.90 per share could trigger strong opposition, especially from older members.

Perhaps the most important result of Benning's investigation is that she clearly understands that she needs to do more than just make a financial forecast and financing recommendation. She also needs to help "sell" any recommendations to the Royal family. "It would be a real shame," she thought, "if we are unable to implement all our changes because we can't convince major stockholders that the changes really are in their best interests. Without them sales will be lucky to keep up with inflation and, more importantly, our operating margin is quite unlikely to improve and may well even fall some. Perhaps I can develop some easy-to-understand financial statistics that will help make our case to the Royals."

The investigation also reinforced a point that Dryer had made to her on a number of occasions. While she does not think that the company's dividend policy makes a whole lot of sense, now is not a good time to address this issue.

Exhibit 1
Royal's Balance Sheets:
1991-1995 ($ millions)

	1991	1992	1993	1994	1995
Cash	$72.7	$53.7	$56.3	$53.6	$55.2
Receivables	33.0	33.1	34.2	35.8	34.8
Inventory	38.9	39.9	39.9	46.1	38.5
Other current	7.8	8.3	9.1	9.9	10.8
Current Assets	$152.4	$134.9	$139.6	$145.3	$139.3
Net fixed	178.8	210.8	208.0	200.7	193.2
Total Assets	$331.2	$345.8	$347.6	$346.0	$332.4
Accounts payable	$8.0	$8.7	$8.2	$10.2	$7.3
Debt due	0.0	0.0	0.0	0.0	0.0
Other current	27.2	28.4	29.1	28.8	30.6
Current Liabilities	$35.2	$37.2	$37.3	$39.0	$37.9
Long-term debt	0.0	0.0	0.0	0.0	0.0
Equity	296.1	308.6	310.3	307.0	294.5
Total L & NW	$331.2	$345.8	$347.6	$346.0	$332.4

Exhibit 2
Income Statement Information
on Royal: 1991-1995 ($ millions)

	1991	1992	1993	1994	1995
Sales	$532.8	$546.4	$559.9	$577.9	$565.5
EBDIT*	86.3	91.8	82.9	76.3	56.0
depreciation	25.8	27.5	29.3	29.0	29.1
EBIT	$60.5	$64.3	$53.6	$47.3	$26.9
Interest	0.0	0.0	0.0	0.0	0.0
EBT	$60.5	$64.3	$53.6	$47.3	$26.9
taxes	21.6	22.4	20.6	18.5	6.9
Net income	$38.9	$41.9	$33.0	$28.8	$20.0
DPS	$0.90	$0.90	$0.90	$0.90	$0.90
EPS	$1.08	$1.16	$0.92	$0.80	$0.55

*** Earnings before depreciation, interest and taxes.**

Exhibit 3
Financial Information on
Royal's Competitors*

Firm	Sales	OM	P-E	MV-BV	D/E	Current	Debt Ratio	TIE	Cash/S
CPC Int.	$8,432	16.2%	16.7	5.0	0.14	0.8	68.9%	7.5	2.4%
Dean Foods	2,630	8.6%	14.5	1.6	0.25	1.4	54.2%	5.8	0.5%
Dreyer's Grand	679	6.0%	23.0	2.3	0.33	2.2	51.7%	1.1	0.4%
Flowers Ind.	1,950	8.9%	15.8	2.6	0.27	1.4	53.4%	6.5	0.4%
Golden Corp	128	8.2%	16.6	2.4	0.01	3.7	17.0%	>100	7.8%
McCormick	1,859	14.0%	18.4	3.4	0.19	1.0	65.1%	3.4	1.2%
Ralcorp	1,013	15.0%	16.1	4.2	0.37	1.7	69.0%	3.1	1.0%
Sara Lee	17,719	11.3%	15.4	3.5	0.13	1.1	60.3%	6	0.9%

*** Notes on Exhibit 3**

- **Sales in $ millions**
- **OM is operating margin. Equals (EBIT + dep.)/sales**
- **P-E is price-earnings ratio. Equals price per share of stock divided by EPS**
- **MV-BV is market-to-book ratio. Equal to price per share divided by book value per share.**
- **D/E equals market value of long-term debt divided by market value of equity.**
- **Current is the current ratio. Equals current assets divided by current liabilities.**
- **Debt ratio is total debt divided by total assets (book value).**
- **TIE is times-interest earned. Equals EBIT/interest.**
- **Cash/S is ratio of cash on balance sheet divided by annual sales.**

MANAGERIAL COMMITMENT, EXPECTATIONS, AND BEHAVIOR: A ROLE THEORY PERSPECTIVE

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ABSTRACT

This paper focuses on the behavior of managers in its social context. We develop an integrated framework suggesting that role theory provides an effective means for describing the interrelationships among expectations, managerial commitment, and the behaviors of managers. The framework is illustrated by two empirical case studies conducted in Finland. One study focuses on the role characterizations of four CEOs. The other study concerns the development of commitment of top and middle managers to an organizational change process, specifically a quality improvement initiative. The authors propose that role theory has theoretical and practical value in explaining the interrelationships among managerial expectations, commitment, and actual behavior. The case of four CEO's emphasizes the idiosyncratic nature of the external managerial behavior: the external stakeholders as role senders and their expectations seems to surpass those of executives' subordinates. Especially noteworthy is the primary importance of customers' expectations. The findings from the case study of commitment formation show that management commitment is related to expectations through the intervening factor of managerial skills. When managers' understanding of the ideology, expectations, or their personal role requirements are unclear, commitment remains low. This paper advances the understanding of an area of leadership behavior that has been largely ignored. Although commitment and role behavior per se are extensively studied, the relationship between role expectations and managerial commitment has received little discussion in management research and literature.

Keywords: managerial behavior, commitment, expectations, role theory, quality management

INTRODUCTION

This paper focuses on the behavior of managers in its social context and suggests that social psychological role theory offers an effective means for describing the effect of expectations on managerial behavior. Our aim is to describe and explain the interplay between a manager's self-expectations and the expectations held by his/her external or internal stakeholders. The framework is illustrated by two empirical case studies conducted in Finland. We propose that the framework is useful for describing the relationship between expectations and commitment, the effect of expectations on both commitment and behavior, and the actions of managers (the enacted role).

The Managerial Role

Visible and effective managerial leadership is assumed to be of paramount importance, but the question of what managers must do to demonstrate that support is equally important. Before that question can be addressed, an even more basic question emerges: what do managers do in the first place? The simple, perhaps naïve question of what managers really do has stimulated a number of studies focusing on a variety of different managers. However, a shroud of mystery still covers "managerial work." Scholars in this field admit that progress has been unsatisfactory, the answers incomplete, and the integration of the various contributions inadequate. Few would question the relevance of the subject--studying these socially vital jobholders, their work, jobs and behavior--but one must recognize the challenges still present. Unfortunately, the topic of the managerial role now seems rather passe, and few new studies have been undertaken.

Tracing back to the classical school of management, the current dogma of managerial functions of planning, organizing, leading, and controlling pervades management thought and practice. However, there is no consensus about what the relevant functions of management really are (see e.g. Hales 1986). Managerial work has also been studied more practically by some researchers who have favored either the inductively oriented job-analysis (see e.g. Stewart 1982), work activity (see. Carlson 1951, Mintzberg 1973) or managerial behavior (see e.g. Sayles 1964, Kotter 1982) studies. Their contribution has shed light on different aspects of the issue what managers really do. The fundamental aim has been to relate managerial work to reality. These lines of endeavor have approached the research subject--whether "jobs" or "work"--by describing its general nature, characteristic features, and lists of task elements.

An important influence has been Stewart's extensive contribution (see e.g. 1967, 1976, 1982). Her model of factual and perceptual demands, constraints and choices formulating managerial jobs has proved to be useful. Fondas and Stewart (1994) have further elaborated this theme and presented a comprehensive integrated framework suitable for analyzing managerial behavior from an enactment perspective (see also Tsui 1984). Sayles (1964) first identified the political nature of managerial behavior. He also stressed clearly the importance of the horizontal and/or nonlinear dimension in managerial behavior and introduced the idea of relationships as modifiers for managerial assignments.

Mintzberg's (1973) well-known description of managerial roles and characteristic features has a high level of face validity and intuitive appeal. In Mintzberg's empirical study of five chief executives he concluded that due to occupying a position of formal authority, the manager is immersed in interpersonal relationships. These relationships provide access to informational roles, which in turn enable the CEO to perform his decisional roles. Finally, Kotter's (1982) main contribution is the introduction of networks and networking (see also Sayles 1964). The most stimulating aspect for this study is his implicit insights of managerial work "as a medium as well as an outcome of the interpersonal networks in which it is embedded" (Willmott 1984, 358).

Our approach is to build on the classical view of managerial behavior by adding two new perspectives, those of leadership proper and role theory. Our choice of perspectives was based in part on the hermeneutical dialogue between original theoretical ideas and the qualitative data collected. The first additional perspective is leadership, which is embedded in the focal phenomenon (see Sayles 1964, Mintzberg 1973, Kotter 1982). Actually, the choice was inevitable--for us leadership reflects the essence of management, especially in its external context. Some scholars have suggested the concept "representational leadership" for externally oriented leadership behavior (see Hunt 1991). However, we propose that external leadership does not diverge fundamentally from internally oriented leadership.

To fit the external context we define leadership rather broadly. From hundreds of definitions available (see e.g. Bass 1981, Yukl 1989, Hunt 1991, Bryman 1992) we adopt the basic idea of interpersonal influence, the common denominator in a variety of definitions. The emphasis is on the interactive and mutual nature of influence that extends across, over and beyond the vague organizational boundaries. To put it still further, we prefer observing this interpersonal intentional influencing between a CEO and his/her external stakeholders as a contingent and political phenomenon. This implies that both parties want to further different interests and values and from time to time the roles of the influencer and the influenced may be changed.

Role Theory Perspective

The second perpsective we add is role theory. It is concerned with studying behavioral roles characteristic of persons and context. In this paper we have adapted the social psychological role theory presented by Katz and Kahn (1966/1978). It has provided the essential means of integrating the other perspectives chosen and for theoretically analyzing empirical data. The role framework is generally useful for analyzing occupational and social positions. Associated with each formal position and social status including that of the CEO is "a set of activities or expected behaviors" (Katz and Kahn 1978, 188). The focal person is thought to behave in relation and in response to these expectations sent by his/her role senders. Second, the expectations concerning appropriate behavior, as well as some of the rewards and punishments concerning compliance with these expectations, are communicated during interpersonal interactions between the focal person and role senders. Correspondingly, interpersonal interactions or contacts are the essential element in managerial activities, as evidenced by virtually all scholars in the field.

Thirdly, thanks to critics of role theory (cf. Biddle 1979), it has been pointed out that focal persons can influence their role senders, too. For our framework this emphasis on one's own choice implies that by leadership the manager can become the source or otherwise affect the expectations sent (Fondas et al. 1994). Whether this cyclical process is called "expectation enactment" or leadership, the outcome of this intentional modification of expectations and mutual adjustments may culminate in a situation in which the expectations of the role senders will iteratively converge on the self-expectations of the manager. And finally, as Tsui (1984) suggests, managers' perceived compliance with the expectations held by the role senders has

close links to their judgment about their reputational effectiveness, an issue largely ignored to date. She also suggests that the effectiveness of a focal manager depends on both the nature of the expectations and the influence relationships among the role senders.

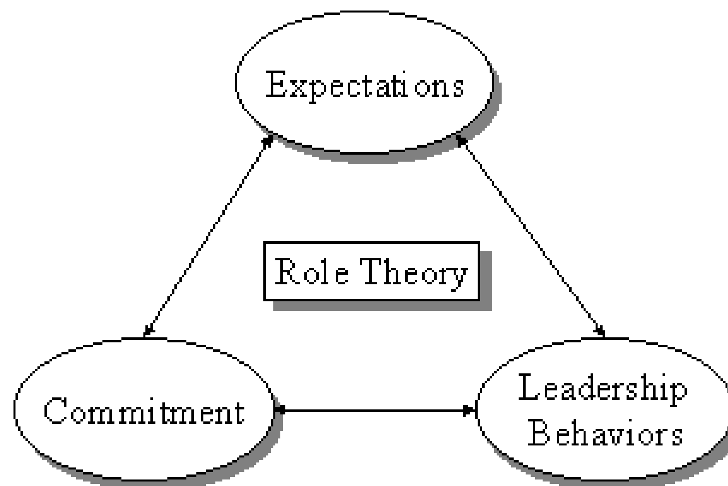

Figure 1. Interaction of expectations, commitment, and behavior.

Role theory has been proposed as useful means for analyzing both the influence of expectations on managerial behavior and the effect of individual actions and preferences on behavior (Hales 1986). Concerning the managerial role, however, it is very unclear as to how 14-point prescriptions or lists of managerial functions are translated into managerial actions. We propose the framework outlined in Figure 1 to relate the concepts of managerial behavior, expectations, and commitment. Role theory explains the interplay among the expectations (self- or other-expectations), managerial commitment, and leadership behaviors.

As can be seen in Figure 1, managerial leadership behaviors are influenced both by the manager's commitment and by his/her role expectations. The model also describes the mutual influence between expectations and commitment, which are seen as potentially mutually reinforcing. Role theory also describes common problems with the enactment of roles, whether managerial or other roles. Specifically, there may be role conflict, role ambiguity, or role overload. In our research, the most commonly identified role difficulty for managers with regard to commitment to quality has been role ambiguity, a lack of clear understanding

regarding the manager's specific responsibilities and requirements vis-à-vis the quality initiative.

In the Finnish case study reported later in this paper, the CEO's external network of stakeholders is perceived as his/her primary role senders. They communicate their expectations-- demands and constraints--during the continuous interactions with the CEO. The received role consists of the research subject's perceptions and interpretation about this sent role. Role behavior is partially the CEO's response to these expectations and in part it reflects his/her own behavioral choices including self-expectations. Here we propose that a CEO's actual role behavior will eventually reflect the current outcome of this mutual process, "the shared expectations." These shared expectations will be illustrated by the empirical roles of the CEOs, which are supposed to consist of mainly the positional but also the personal expectations for the managers in question (see Biddle 1979). Each manager has an integrated role or a gestalt--the fundamental expression of his/her response--and some supporting roles directed to different stakeholders (cf. Mintzberg 1973). However, the enormous diversity and ambiguity of the expectations is believed to be indicative of role differentiation, too.

Managerial Role and Commitment

The role of managers in organizational change and managerial commitment to change are key concerns for organizations. Commitment has become an element of the dynamics of business strategy (Ghewamat, 1991). Managerial commitment processes are not well understood although management commitment is commonly stressed in the management and organizational change literature (Beer et.al, 1990, Mezias & Glynn, 1993, Tushman & Romanelli, 1985). Systematic evidence of the behaviors stemming from commitment and the development of commitment itself is rare. In managing organizational change, managerial commitment draws on one of the core concepts of leadership, interpersonal influence (Yukl, 1989), and on the important role that managers play as change agents and catalysts. Any type of change requires managerial support and commitment (Mezias and Glynn, 1993), in essence, a powerful actor for leading and accomplishing change efforts. As Beer et al. (1990) contend, "Corporate renewal is not an impersonal process unfolding of its own accord. It is possible only when individual managers at the unit and corporate level have sufficient *commitment and skills*."

Management commitment is a natural, active part of the dynamics of the process by which organizational changes are realized. A collaborative/participatory management style seems to be essential for the process of implanting new ideas and systems. As Hoffherr et al. (1994) put it, "The new ideology must frequently be a championed cause, introduced and sustained by one strong leader."

Commitment has been studied as organizational and work commitment. The research has mainly focused on the work force (Locke et.al, 1988) and rarely on managerial level. In these studies, the individual commitment has been defined as organizational or goal commitment.

Goal commitment is closely related to goal acceptance: by definition it refers to the individual's attachment to a goal or determination to reaching a goal (Locke et.al, 1988). Organizational commitment can be defined as the relative strength of the identification of an individual with and involvement in a particular organization (Modway et.al, 1979). Based on these definitions, commitment is an active relationship with an organization, not just a passive membership.

Two major approaches to studying commitment have been applied in commitment research. First is the behavioral approach, which focuses on commitment-related behaviors (overt manifestations, actions). Second is the attitudinal approach, which refers to the individual's identification with an organization and its goals (manifested in opinions and beliefs (Modway et.al, 1979). In the case study reported later in this paper, both approaches are combined, and managerial commitment is explored by gathering data on managers' perceptions. Commitment can be inferred from managers' perceptions of their actions and beliefs. As a starting point, we assume that commitment is an active relationship to an organization (not merely membership). Managers' commitment is considered to originate in two main areas; first, in the core idea of influence in leadership (see e.g. Yukl, 1989); and second, in the management's essential role as a change catalyst and leader. Deep commitment of management is a sent role expectation (a significant role requirement) in the implantation of quality management thinking in an organization.

Managerial Role and Commitment in Quality Management

Nowhere is the need to understand the managerial role greater than in the area of total quality. It is by now obvious to even the most casual of observers that quality has become an indispensable competitive weapon for organizations, yet the term remains elusive. According to Garvin (1988) "quality is an unusually slippery concept, easy to visualize and yet exasperatingly difficult to define." We have adopted the following premises in our work: A global definition of quality does not exist; Quality is considered a multifaceted construct of many meanings; Different quality definitions are appropriate in different circumstances. "Quality" is a socially constructed concept that is context-specific in nature. It cannot be understood without relating the concept to the society/person that/who gives meaning to it. Contextual quality studies are thus needed to make theoretical advances because the ambitious search for a universal definition of quality has yielded inconsistent results (Reeves et.al, 1994).

Furthermore, quality in the managerial context is considered holistic. This is, in fact, an argument for *total* quality *management*. Because quality is included in all functions and operations in an organization, a total managerial approach (i.e. coordination and integration) is required to avoid a fragmented approach and the dominance of one function in daily practices. An important role of management is to combine and integrate different perspectives on quality to create a commonly shared and clearly understood language.

Total Quality Management (TQM) has permeated organizations globally in the late 1980s and early 1990s. But in spite of this huge popularity, systematic evidence on quality management

practices is relatively scarce. In the field of quality management, commitment to quality, in particular, has been prescribed as a crucial requirement for the successful implementation of quality improvement. The managerial role is highlighted as an antecedent in carrying through quality improvement processes (Crosby 1979, Deming 1985, Feigenbaum 1983, Garvin 1988, Juran 1988). According to Juran's famous cliché, "management commitment is pertinent to every successful quality revolution, no exceptions are known!" However managerial commitment processes are not well understood and the relationship between managerial commitment and expectations is rarely examined.

Total Quality Management (TQM) can be conceptualized as an entire management system (Feigenbaum, 1983). It is multidimensional in nature including ideological aspects (way of thinking) and quality techniques or tools. As a managerial "art" TQM can be outlined as a system encompassing a loosely related but significant set of philosophical principles and managerial procedures. The essentials of TQM can be briefly summarized as follows (Savolainen, 1997):

1. **A broad conception of quality, referring both to the quality of the product (end result) and of the activity (process)**
2. **A uniform value base of the importance of quality. Quality as an instrumental value; for enhancing competitiveness and profitability.**
3. **Customer-driven quality as the main strategic priority;**
4. **Managerial leadership and support (visible and effective)**
5. **Employee involvement and empowerment (vertical deployment)**
6. **Continuous improvement as an orientation toward change implementation (prevention rather than inspection as a leading principle).**

The successful implementation of TQM is an organizational change process, which often requires an extensive cultural change and, thus takes years to become embedded in an organization (Crosby 1979, Deming 1985, Lascelles and Dale, 1990). Getting to TQM requires management commitment to change. In the quality literature, however, management commitment seems to be a self-evident prescription widely stressed as a necessary requirement (expectation) for management. But it apparently has not been called into question. In the quality management literature, management role is considered preeminent, indispensable, or even crucial (Crosby 1979, Deming 1985, Juran 1988). Prescriptions of management's duties include the following responsibilities and means: shaping organizational culture by advancing quality awareness and values, strategic quality management, the development and communication of quality policy, setting quality goals and measuring them, and standing for quality systems development.

Framework for Understanding the Managerial Role Perception and Enactment

Drawing from these separate lines of reasoning, we develop the following framework for understanding the manager's role. Because the managerial role is contextually-driven, we

expect different CEOs and managers to develop different role perceptions and to enact their roles differently. But this framework describes a process of developing understanding of how these perceptions are influenced, and how, ultimately, the behavior of a given leader reflects (and is reflected in) the expectations of self and others. The factors we considered are dominant expectations, the manager's stakeholder network, the dominant alliance within the stakeholder network, the manager's "holistic" role, the differentiated managerial role, the primary role sender for the manager, the leadership style of the manager, his/her personal style, and his or her management focus (whether strategic, tactical, or operational). Below, we discuss further the sources of role definition and role expectations. This framework was used to categorize the external behaviors of the four CEOs in the first study described in the following section.

Dominant Expectations. A primary concern in managerial behavior and the enactment of the managerial role is the question of whose expectations dominate. Are the dominant expectations those of the person (internal), or those of others (external), or is there balance between internal and external expectations?
Stakeholder Network. The manager's stakeholder network may be narrow or wide, diffuse or focused.
Dominant Alliance. The manager's behavior will be most directly affected by those members of the network with whom he/she is in coalition or alliance.
"Holistic" Role. This concept refers to the self-image of the manager, or how does the manager see him/herself in *toto*?
Differentiated Roles. The holistic role is subdivided into competing and sometimes conflicting sub-roles.

FINDINGS FROM TWO CASE STUDIES

In two qualitative empirical case studies, we sought to understand the relationships between role perceptions and managerial behavior (Wahlgrén, 1995, 1997) and among management commitment, expectations and corresponding managerial actions (Savolainen, 1994). Below, we briefly present the key findings of these studies and then draw conclusions from both studies in the light of the framework we have developed for understanding the interplay among expectations, commitment, and managerial behavior (see Figure 1).

Study One--Perceived Role and Managerial Behavior: The Case of Four Finnish CEOs

In this study, we defined all people and groups outside of the formal control of the managers in question as "external." By the external focus and the top-level orientation we highlight the growing importance of nonlinear managerial work, the expectations of external stakeholders and extensive leadership thinking. Our approach begs the question of the relationship between environmental determinism and expectation enactment in external managerial behavior. By enactment we refer to the notion of managers proactively creating suitable environments for themselves (see e.g. Weick 1969, 1979). The selected managerial work elements are mainly

deduced from those inductively oriented studies, which can be integrated with external focus (see e.g. Stewart 1982, Fondas et al. 1994, Sayles 1964, Mintzberg 1973, Kotter 1982).

The empirical study concentrates on describing and analyzing the external managerial behavior of four Finnish CEOs. As primary theoretical argument for the setting we first presume that both the possibilities of choice and the load of external demands and constraints are most evident at the top level (cf. Pfeffer & Salancik 1978). Second, we want to point out the amount of effort and time the managing directors invest into externally oriented behavior.

Research Methodology

Traditionally the scholars in inductive management studies have used both quantitative and qualitative approaches. The proponents of the former methodological approach favor large samples and statistical analysis aiming at generalizations. The typical methods have been structured observation and surveys. The supporters of the qualitative alternative have a different philosophy of science as a starting point and thus divergent goals. The aim for increased understanding of a complex phenomenon has been the leading motive for these researchers.

The main methodological positioning of this study is analogous to many studies of managerial work and/or job-analysis tradition. We have adopted a holistic view of the phenomenon and for this purpose a case study approach has been chosen (see e.g. Yin 1989, Gummesson 1991). The basic research question of the original study follows: *what is the external managerial behavior of the CEO and how is it formulated?*

The empirical part of the study draws on the experiences, thoughts, perceptions and actions of four Finnish CEOs. In order to create in-depth descriptions and to try to understand the subjects' realities we have had to limit the number of those studied. The case managers were chosen by using a two-dimensional framework as a starting point. The first dimension was the "status" of the CEO, employed manager vs. self-employed owner/entrepreneur. Secondly we used the type of the firm--industrial vs. service sector. In addition to this we have used purposeful stratified sampling (see Patton 1990). The strategy for selecting the CEOs--Heli, Tapani, Kalevi and Marja--was to have different, illustrative and thus very informative cases.

The subjects have been studied by using different methods: diary techniques, observation, interviews and written documents. This triangulation increases both the validity and the reliability of the data. The fundamental idea in fieldwork has been to use the prevailing data in providing increased understanding for further data collection.

The study adopted a contextual approach, seeking to describe the externally-oriented behavior of the case study manager in its social context. The intention was to describe all CEOs and their firms together with their external stakeholders and business environments. All the CEOs

have read and accepted the original case descriptions and role interpretations (see Wahlgrén 1995), which represents an essential confirmation for the validity of the study.

Key Findings

The contribution of the perspectives used revolves around expectations. The expectations sent by the external network of stakeholders and the self-expectations of the CEO seem to formulate the external managerial behavior of the subjects. The focal CEO's managerial behavior, existing expectations and the relationship between these two are shaped and refined during a cyclical, interactional process. This process results finally in a reduction of role ambiguity for the CEO. Both the holistic role and the differentiated roles emerging from the data aim to capture the essence of the behavior instead of trying to explicate roles as concrete descriptions of individual acts or actions.

The stories of the business seeker, the networking novice, the politicking negotiator and the teacher are both fascinating and challenging in their diversity. These holistic roles highlight strongly the significance of the CEO's personality including such important inner forces as aspirations, needs, fears, defenses and self-images. As regards to the female CEOs there seems to exist a partial lack of fixed expectations. Marja and Heli have utilized this extra chance for choices and filled the void by skillfully enacting their self-expectations reflecting their idiosyncratic characters. Although there are some differences in the differentiated roles of the CEOs, too, each of them is expected to take care of the spokesperson and troubleshooter roles. The coexistence of these roles suggests that they basically reflect expectations sent for all incumbents of a CEO's position (cf. Mintzberg 1973).

The possibilities and the resultant vigor of self-expectations in formulating the CEO's managerial behavior seem to be remarkable. In three of the four cases the external managerial behavior is mainly adapted by one's self-expectations and the enactment of expectations is enabled and facilitated by leadership. The basis for this interpersonal influence is to be found in the CEO's perceived expertise, charisma and/or credibility. The variety of interests puts also emphasis on the political aspects of leadership including negotiation skills. The successful compliance with expectations seems to create preconditions for a process leading into a self-fulfilling prophecy (cf. Eden 1993).

The case managers modify their external contexts by leadership and the context modifies their behavior by demands and constraints. The importance of organizational context including the macro level interdependencies and organizational variables (e.g. structure, size, division of work, resources) remains ambivalent. The general impact is reflected in how the CEO perceives his/her strategic domain. Marja highlights the point, Kalevi feels to be in control at the moment, Tapani evades the basic question and for Heli these demands and constraints seem to be indifferent. Some of the effects are mediated into the personal domains of all CEOs, even though they might at least partially neglect those expectations. The status of the CEO--whether an entrepreneur or an employed professional one--does not necessarily

determine the width of the personal domain. On the contrary, the cases indicate that the personal domain can, at least to a certain extent, be deserved and taken: in addition to expertise and reputational effectiveness with skillful enactment of expectations.

The contribution of personal relationships as formulating external managerial behavior appears to be remarkable as anticipated. Every CEO has a multilevel network of external stakeholders tied together with different bonds. The close social and emotional ties of the CEOs' core network imply about both evident interpersonal attraction and the high frequency of interactions, which both further the enactment of expectations (see Fondas et al. 1994). As regards to more formal work related networks the importance of economical ties increases and the CEOs must obviously comply with some expectations of their critical role senders. The networks of Kalevi and Marja are focused, especially compared with those of the owner managers consisting of various relationships established during long work histories. The main interpretations are summarized in Table 1.

Table 1. Role characterization of four Finnish CEOs (adapted from Wahlgrén, 1998)

Dimension	Managerial Leader (CEO)			
	I	II	III	IV
Dominant Expectations	Self-expectations	Expectations of others	Self-expectations	Self-expectations
Stakeholder Network	Wide Multilevel	Narrow (but widening)	Focused (highest level key players)	Focused (mainly top level)
Dominant Alliance	Customers Potential partners	Customers Networks	Group Board Local authorities	Customers Group Partners
"Holistic" Role	Business seeker	Novice	Negotiator	Teacher
Differentiated Roles	Entrepreneur General visionary Business link Figurehead	Networker Salesperson Troubleshooter Figurehead	Networker Spokesperson Balancer	Coach Information seeker Troubleshooter Catalyst
Primary Role Sender	Customers	Co-owner	Retailing group	Customers
Leadership Style	Charismatic leadership	Shared leadership	Political leadership Distant charisma	Charismatic leadership
Personal Style	Flamboyant	Affiliative	Diplomatic	Modest
Management Focus	Operational	Operational	Strategic	Operational

The empirical findings can be reduced to a proposition lending support to role theory: *the external managerial behavior of the CEOs is circular*. They also support partially the model of expectation enactment presented by Fondas and Stewart (1994), in spite of the external focus. Most CEOs' roles reflect considerably their self-expectations. Many variables dealing with either the characteristics of the CEO or the relationship between him/her and the role senders have facilitated the enactment of these shared expectations in this study. The analysis indicates the positive influence of the perceived effectiveness of managerial behavior, the frequency of interactions, the personality and the gender of the CEO, and leadership. With support of these variables together with either factual or perceived compliance with enacted expectations a positive circle of expectations--a sort of halo--starts emerging. This potential self-fulfilling prophecy calls for confidence in the CEO's ability to comply with expectations, which may be created by leadership and facilitated by influential referees, networks and the media. Surpassing the level of expectations and constantly fulfilling critical expectations will strengthen the positive judgements.

Respectively, the circle of external managerial behavior can originate in many variables outside the control of the incumbent. A heavy resource interdependence of the company obviously makes the enactment of expectations difficult. The situation is complicated if the expectations sent are contradictory, the macro level interdependence(s) strong and the personal variables of the focal CEO unfavorable. One alternative choice is to try to make changes in the stakeholder coalition by means of new combination. This implies a strategy of finding new groups more receptive to one's self-expectations. The clever adjusting of self-expectations to the interests of the powerful stakeholders could perhaps help in breaking out of the vicious circle.

***Leadership is embedded in the core of external managerial behavior*. The impact of leadership on enacting expectations is essential. In the light of the empirical cases the categorical differentiation of "external leadership" is not relevant. In addition to expertise, the leader's personality and political skills are highlighted. The female CEOs emphasized their charisma, intuition and visionary leadership furthering the interests of the stakeholders. On the other hand, the male CEOs were more apt to taking advantage of the informal networks mobilizing influence. As a whole, the proactiveness of behavior indicates also intelligent social action: the CEOs' self-expectations mirror skillful tactical and strategic anticipative reflection.**

Study Two-- Development of Managerial Commitment in a Finnish Manufacturing Company
Case Study Setting and Methodology

The case study was conducted in a medium-sized, family-owned but professionally managed Finnish company. The company was in the mature stage of its life cycle and the organizational culture was at least partly dysfunctional. The competitive environment of the company had undergone major changes; the struggle for market shares and price competition had substantially tightened in the late 80's and early 90's. This company employed 270 workers including a few subsidiaries. Net annual sales were about 24 million US dollars

A qualitative case study approach was adopted in this study, due to scarce empirical work in this area. Concentration on one company made it possible to produce empirically-grounded results through rich descriptions, in-depth analyses and thorough interpretations. Methodologically, the study can be categorized as an inductive type of research meaning that the fieldwork played an important role.

The following questions were addressed to explore the relationship between managers' perceptions of their role in quality leadership, the enactment of the role and managerial commitment formation: How do managers perceive the concept and role of quality? How do they perceive their role in quality management, what they expect of themselves and what is expected of them by subordinates? Does the management commit itself to the change process and how, in other words, how do managers perceive and experience commitment and how is it created? Finally, how do managers demonstrate their commitment?

The intensive collection of mainly qualitative data was made by open-ended and semi-structured in-depth interviews with the whole top and middle management, and with the project manager. In addition, a handful of supervisors and workers were interviewed, 16 interviewees in all. Complementary written documents were used, including the minutes of meetings, annual reports, in-house journals and announcements and documents of the quality system project. Temporally, the data included both past and present observations covering the period of about four years (1990-94). All interviews were recorded and transcribed. For the analyses and interpretation, transcriptions were sorted out by themes and by managerial levels.

Key Findings

The idea of implanting a new quality management system had been germinating a few years before the final decision was made by the board of directors. The awakening to quality took place gradually in the company, and, finally, the need was recognized as the two major change factors matched each other; one of them was external: the increasing competition due to European integration, and the other was internal; developmental needs in different departments (functions). The interpretations of the change forces differed, however, according to the managerial levels. The main argument for the top management was external and the rest of the management mainly perceived the change factor as internal.

In the early phase of the process, there was a strong '*state of expectancy*' in the company. Managers spontaneously associated management commitment with quality improvement and regarded their role as significant (self-expectation). Top management believed that subordinates expected active and visible role of it but could not clarify the role in more detailed. In fact, the interviews among managers confirmed what the top management believed. Managers invested strong, albeit differing, expectations in a new quality management system. General expectations such as planning and goal setting, and the clarification of organizational quality philosophy were expressed. Their perceptions represented 'ideal' goals

of a new management system at both the individual and organizational level. Individually, the way of thinking, attitudes and actions for each member of an organization were expected to change. Operationally, the quality system was perceived to totally and gradually change the company's 'way of action'. In the first phase, the expectations shaped into the idea (norm) of 'doing-things-right-the-first-time'. The concept of quality seemed to be "slippery" and elusive for the management despite of the fact that it was widely discussed. Quality was perceived as an unambiguous concept. Managers also expressed suspicions and uncertainty of the significance of the quality program for the company, of the achievement of commitment, and of the success of implementation. Middle managers, especially, were uncertain about what a new system would personally require of them (role ambiguity). Supervisors felt both enthusiastic and skeptic. Middle managers expected collective commitment among the management.

Concerning the management's *commitment-related actions*, the intensity and approach to participation varied. As a whole, a personal presence and contribution seemed to be lacking. Part of the middle management regarded their participation as duty-bound. This group was concerned about the sufficiency of time and they mainly seemed to concentrate on daily routines.

Education and quality awareness did not seem to advance managers' commitment. Systematic training for the management was not organized at the beginning of the program and no quality advocate rose among management to propagating quality values consciously and visibly. The priority was given to constructing the quality system and quality values and philosophy was not discussed in the first place. Likewise, communication was not a managerial means for getting subordinates involved. In the involvement of subordinates, managerial actions varied from active personal participation (communication and exemplar) to nearly total passivity among both top and middle management levels.

As a manifestation of commitment, top management declared quality policy but was not actually visible otherwise. Middle management perceived the declared policy as the "framed picture of commandments" hanging on the wall, which was not realized in daily practices. It was a signal to the organization that top management was taking note of quality issues. The process of quality goal setting turned out to be difficult because of an elusive quality concept and management philosophy. Quality goals were discussed among managers but the development of measurement tools was perceived as difficult. It seemed apparent that in implanting a new quality management system emphasis would be on the improvement of the whole management system (on the strategic and operational planning and goal setting, in particular).

Middle managers expected top managers to play an active and visible role and considered top management commitment the most critical factor for their commitment. In addition, the support of the colleagues on the same organization level proved to be important for middle managers. The meeting practices of the management quality board illustrated the "faceless"

role of the top management, as meetings were canceled repeatedly. This did not change in the course of a process. Due to this, the middle management expressed frustration and disappointment in the phase of transforming from the planning phase of the quality system to its implementation. Top management commitment remained "half-hearted" and middle management commitment remained low, as well (cf. Olian and Rynes 1991). The lack of commitment at the senior management level was related to the perceived meaning and content of change, and the strategy of change. Although the change program was organization-wide and top management was involved in launching the program, the change strategy, that focused on constructing a quality system, aroused skepticism as a bureaucratic tool for improving operational level processes. As a consequence, from the very beginning of the improvement process, there were doubts among the management about the successful integration of the new quality system with the company's management system. Top management willingly approved quality and regarded it as the important survival means for the company but was skeptical toward the functionality of the new management system at the same time because of bureaucracy and laborious sustenance and maintainability.

CONCLUSIONS

The contribution of this paper deals with the *integration of theoretical concepts*, which has enabled us to look at a new, alternative perspective in attempting to understand the relationship between expectations, commitment and (internal and external) managerial behavior. The conceptual framework developed in this paper has been shown to be useful. The concept of expectation is meaningful both theoretically and practically: *expectations formulate our behaviors.*

Managerial behavior cannot be studied in isolation--neither from the rest of the person nor from the external and internal environments in which the focal managers work. In addition to describing and interpreting the managerial behavior in these cases, we have also tried to build understanding about how their behavior is formulating. The assisting perspectives, leadership and social psychological role theory have proved to provide consistent means for studying the phenomenon in question at the top managerial level of the companies. Although there are many alternative theoretical perspectives, which may provide important insights into the formulation of managerial behavior this theoretical framework has proved to offer a relevant means for an inductively and qualitatively oriented approach. The methodology used has enabled a holistic view of the phenomenon, unfortunately at the inevitable cost of generalization. The empirical findings presented in this paper cannot be generalized. Rather, the case of four CEO's emphasizes the idiosyncratic nature of the external managerial behavior, as has been originally assumed (cf. e.g. Miner 1987): the external stakeholders as role senders as well as their expectations seems to surpass those of CEO's subordinates. The primary importance of customers' expectations is worth reiterating. This supports prescriptions in the quality management literature of customer-focus as a basic strategic starting point for quality initiatives.

If expectations are accepted as a crucial element affecting managerial behavior and the dilemma of the relationship between environmental determinism and manager's own impact on his/her behavior considered worth further researching the methodological choices present evident challenges. The potential of observational studies to detect these cognitive social processes seems to be questionable (cf. Martinko and Gardner 1990). With regard to surveys the basic problem remains the same, but with skillfully designed questionnaires we could perhaps both empirically test the framework and move forward by refining it.

The findings from the case study of managerial commitment indicate that commitment formation is related to expectations but also to several other management and organization behavioral factors that shape commitment creation. The findings suggest that commitment creation is a culture-related process. The study reveals that the concept of quality is "slippery" and elusive for management despite of the fact that it is widely discussed. Quality is experienced as an ambiguous concept. This has an effect on the perceived and expressed role expectations which become unclear, and role ambiguity results. Role ambiguity is related to the role enactment, in this case in the demonstration (or lack thereof) of commitment (see Figure 1). Managerial commitment remains low. Deficiencies in the whole management system (vague philosophy and values, undeveloped planning and goal setting practices) had an effect on the progress of the change process. Overall, the dysfunctional organizational culture turned out to be a hindrance for achieving high commitment among management.

Concerning the relationship between commitment and expectations the findings indicate, in more detail, that managerial commitment is related to expectations through an intervening factor of managerial skills (ideological thinking about quality). Managers willingly talk about quality and regard it as a very important competitive means for the company. But if these perceptions remain elusive and unclear, they affect expectations and commitment formation accordingly. A circular behavior appears: as the concepts and tenets of quality management are not known, expectations become unrealistic or inarticulate, managerial commitment remains low and, consequently, ideas of quality are not shared in the organization. Thus organizational involvement remains low as well. Quality improvement efforts encounter resistance and even founder in the entire organization.

The findings give support for prior descriptions of top managerial leadership as an indispensable requirement for successful change management (cf. Beer et al. 1990, London 1988), and highlight the role of embedded ideology in renewing organizational practices. As conceptual imperceptibility (vague quality philosophy) and low commitment have an unfavorable effect on the management of organizational change process, it is proposed here that the implantation of a new management system in the company requires good managerial skills (especially conceptual) to advocate ideas, concepts and values.

MANAGERIAL IMPLICATIONS

These case studies have important implications for managers. This paper proposes that shared expectations as manifested in CEOs' roles can contribute in furthering understanding about managerial behavior. If the relevant role senders and the CEO share the expectations for the latter's behavior to a sufficient extent, they will start treating the focal manager in a uniform fashion, too, thus reinforcing his/her role (see Biddle 1979, 123). This theoretical simplification seems to offer significant hope for the CEOs. By skillful enactment of expectations they may be able to take the lead among their external role senders, too.

The study of internal managerial behavior and commitment creation highlights the importance of managerial skills in the perception of expectations and commitment formation among management. This case implies the important role that a rooted managerial ideology plays in commitment formation and in the clarification of expectations, and the role of management, accordingly. Visible action in advocating new ideas and concepts is needed in organizational commitment creation. Conceptual skills in the implantation of new ideology should be taken into consideration more carefully. Managers must understand the concepts and basic tenets of a new managerial ideology to clarify the role they play in quality leadership. This understanding helps managers to internalize what is expected of them in implementing strategies for quality and to become capable of propagating the ideology organization-wide. This, in turn, directs concrete measures taken and effectively supports developmental efforts in the entire organization. The implication is that a shared ideology that has permeated the organization is important for creating managerial and organizational commitment in the transformation of the new ideas into actions. The embedded management ideology is ultimately put into the test in drastic challenges of the business environment. Rooted ideology may develop into a 'mental buffer' and form an inimitable competitive advantage in the face of competition.

Taken together our studies demonstrate the need for further research into the source and leverage of various internal and external role senders in developing managerial role expectations. Our theoretical framework should prove useful for both qualitative and quantitative research into the managerial role. Most important, the development of managerial commitment to organizational change, especially to the implementation of total quality, seems to proceed most effectively if the managerial role is clearly defined and commitment can be translated into supportive behaviors. Our research shows that many of the failures in TQM implementation can be understood as failures of the organization to clarify the desired managerial roles, expectations, and commitment required to produce consistent, visible, and appropriate managerial support.

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