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**Sang Hyung Ahn**  
**Editor-In-Chief**  
**Seoul National University**  
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**[www.kinforms.org](http://www.kinforms.org)**  
**Email: [kinforms@kinforms.org](mailto:kinforms@kinforms.org)**

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## Tax-Induced Excess Trading Behaviors on ADR Ex-Dividend Days

Bi-Huei Tsai  
Department of Management Science  
National Chiao Tung University  
Hsinchu 300, Taiwan  
E-mail: bhtsai@faculty.nctu.edu.tw

I-Chih Chen  
Department of Management Science  
National Chiao Tung University  
Hsinchu 300, Taiwan  
Email: bhtsai@faculty.nctu.edu.tw

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### ABSTRACT

*Under U.S. regulations, the differential tax obligations for investors with various status and income levels give rise to investor heterogeneity. In contrast to tax dividend income imposed on U.S. stocks, foreign tax liability is the minimums of the taxation imposed on American depositary receipt (ADR) dividend income. Identical foreign tax rates enable ADR investors to be more homogenous in taxation than U.S. stock holders. The characteristics are likely to enable investors to sell ADRs before cash dividend distributions and repurchase ADRs on ex-dividend dates. As expectations, our analysis exhibits prominent excess returns and excess volume on ADR ex-days.*

*This implies that heavy foreign tax liability simultaneously causes excess returns and excess volumes on ADR ex-dividend days (ex-days). The 3SLS estimation further supports the view that ADR ex-day excess returns are causally and positively related to excess volume. In particular, the ex-day excess returns are significantly associated with dividend yields, transaction costs and risk factors. This suggests the tax-induced returns constrained by transaction costs and firm's risks.*

**Keywords:** *ADR, Tax-induced Hypothesis, 3SLS, Ex-dividend Day, Dividend Yield*

## **INTRODUCTION**

In a perfect capitalist market with no transaction costs, no trading barriers, and no uncertainty, the price of a share following a dividend release should fall by the exact amount of the dividend paid on each share. However, it is well known that share prices on average do not fall by the full amount of the dividend. There is much literature in which this discrepancy is seen as result of tax considerations (Elton and Gruber, 1970; Eades et al., 1984; Poterba and Summers, 1984; Lakonishok and Vermaelen, 1986; Barclay, 1987; Michaely, 1991; Lasfer, 1995; Lasfer, 1996; Bartholdy and Brown, 1999; McDonald, 2001; Elton et al. 2005; Chay et al., 2006; and Armitage, et al., 2006). Their line of research has explored the effects of dividend income tax on investor behavior around the time of ex-dividend days (ex-days). They argue that investors who receive a tax disadvantage from the dividends will accelerate their sales before the ex-dividend days and delay their purchases until those days.

Hence, excess returns and increased trading volumes will be observed during ex-dividend periods. The existing evidence on the effect of tax on investors is mixed. Some studies have provided

evidence of tax-induced investor behavior around ex-dividend days. Barclay (1987), for instance, has indicated that stock prices fell by the full amount of the dividend on ex-dividend days prior to the adoption of dividend income taxes in 1913. Lasfer (1995) examined the behavior of share prices around the ex-dividend days both before and after the 1988 Income and Corporation Taxes Act in the U.K. The study found significant ex-dividend day returns in the pre-1988 period when the tax differential between dividends and capital gains was high, while ex-day returns were insignificantly negative in the post-1988 period. Elton et al. (2005) employed two types of closed-end funds. One type of closed-end fund had taxable dividend distributions but the other did not, and both types were subject to taxes on capital gains. They stated that ex-dividend-day prices differed greatly between these two types of funds due to the effect of taxes.

Other studies have not found evidence to support the tax hypothesis. Shaw (1991) explored the significant the excess return and volume around ex-dividend days of untaxed master limited partnerships (MLPs). Frank and Jagannathan (1998) found that the average fall in stock prices on ex-dividend days appeared to be smaller than the amount of the dividend, even though neither dividends nor capital gains are taxed in Hong Kong. Such results cast serious doubt on the effects of tax as a valid explanation for abnormal behavior on dividend days. Other researchers suggest that microstructure can be an alternative explanation. Dubofsky (1992), Bali and Hite (1998), as well as Jakob and Ma (2004) have proposed that discrete tick (price discreteness), instead of tax factors, plays a critical role in the ex-dividend day price drop.

These previous studies mostly employed U.S. stock samples as part of their tax-induced trading hypothesis, but U.S. stock investor trading behaviors are heterogeneous in ex-dividend days due to the tax regulations. Dhaliwal et al. (2006) focus on U.S. stocks to determine whether or not differential tax obligations for investors with various

status levels give rise to investor heterogeneity. Under U.S. regulations, some institutional investors are exempt from dividend income tax, so those for whom dividends are taxed at lower effective rates will prefer to receive dividends. They tend to acquire stocks cum-dividend and sell stocks ex-dividend to capture the dividends. On the other hand, individuals for whom dividends are taxed at higher effective rates will tend to sell stocks cum-dividend and repurchase stocks ex-dividend to avoid dividends. Regulatory tax heterogeneity induces inconsistent trading strategies for various investors who are subject to differential tax obligations, so trading volume are likely to increase. Meanwhile, it is difficult to forecast the return patterns of ex-dividend days since individuals buy stocks and institutional investors sell stocks on ex-dividend days. A correlation is unlikely to exist between excess returns and volume on ex-dividend days.

This paper uses a sample of American Depositary Receipts (ADR) to test the tax-induced relations between trading volume and returns because investor trading behaviors are more homogeneous in ex-dividend days for ADRs than for U.S. stocks. ADRs are securities traded on U.S. exchanges that represent foreign companies outside the U.S.. ADR dividend incomes are subject to two kinds of taxes; one is dividend income tax under U.S. jurisdiction and the other is the foreign withholding tax (imposed on dividend income). As Cyrus et al. (2006) indicate the regulations deviate across different country, ADRs, which issued from different countries, are subject to discrepant foreign withholding rates. Meanwhile, U.S. stock holders only have to pay dividend income tax under U.S. jurisdiction. The main difference in dividend income tax between ADRs and U.S. stocks is that ADR investors are subject to foreign withholding tax liability.

As for foreign withholding taxation, ADR dividend incomes are subject to foreign withholding tax. In a way that is different from the dividend income tax that applies to U.S. stocks, the foreign tax rate for a given dividend distribution is known and remains constant across all

of the ADR investors regardless of U.S status and income levels. The tax-exempt institutions in the U.S. have the same obligations to pay foreign withholding taxes as do other investors. The major advantages of using ADR data is that all ADR investors are subject to an identical foreign withholding tax rate associated with the ADR dividend income.

Furthermore, all ADR investors who pay foreign dividend withholding tax are entitled to a foreign tax credit bound to the U.S. effective tax rate according to Section 904 of the Internal Revenue Code. Thus, the U.S. tax-exempt institutions, which do not pay any tax to the U.S. government, cannot benefit from the tax credit. The total amount of tax they have to pay for an ADR dividend income is the foreign tax liability to the country where the company that issues the ADR is located. For individual investors, when their foreign withholding tax rates are greater than the U.S. effective tax rate, the excess portion is not able to offset the U.S. tax liability. The total amount of tax that individuals have to pay is also equal to the amount of foreign tax liability. In summary, foreign tax liability represents the minimum of the taxation imposed on an ADR dividend income, so ADR investors are more homogeneous in dividend income taxation than U.S. stock holders, especially when a heavy foreign tax rate is imposed on an ADR dividend income.

Specifically, higher dividend yields generate a heavier foreign tax liability and are more likely to encourage ADR investors to sell stocks cum-dividend and to repurchase stocks on ex-dividend days. Dividend yield is an important tax factor which results in contemporaneous excess returns and excess volumes precisely on ex-days. It is critical to apply simultaneous systems equations in order to calculate the ex-day trading from the ADR market. Although prior studies on tax-induced ADR trading have pointed out the impact of dividend yields on ADR excess volume (e.g. Callaghan and Barry (2003)), they do not discuss the ex-day relationship between ADR returns and ADR volume through dividend yield variables.

This paper attempts to apply the three-stage least square (3SLS) methods to determine the interactive relevance of ADR excess returns and excess volumes on ex-days in the control of the exogenous impact of dividend yield, transaction cost and risk factors. In addition, the results of 3SLS estimation methods are compared with those of 2SLS or OLS estimation methods to ascertain if the former estimations are more efficient.

The results reveal the ex-day excess returns and excess volumes on ex-dividend days. In addition, ex-day excess returns run positively to the dividend yield but are constrained by the transaction cost and firm risks. Only when the determinants of ex-day trading behaviors in this study are controlled by the 3SLS estimation method, the empirical results exhibit significant and causal positive relations between excess returns and excess volumes on ex-days. The above-mentioned results are not found if the relationship of the ADR excess returns and volumes are estimated based upon the 2SLS or OLS methods. This suggests the more efficient estimation when our models consider the contemporaneous covariance in simultaneous equation.

The remainder of this paper is organized as follows: in section 2, we state the hypothesis development. In section 3, we explain the data and sample. In section 4, the methodology is described. In section 5, the empirical results are discussed. Finally, conclusions will be drawn in section 6.

## **HYPOTHESIS DEVELOPMENT**

### **Ex-day excess returns**

Elton and Gruber (1970) and Kalay (1982) argue that a market will value a dollar of dividends less than a dollar of capital gains because investors, who receive dividends, must pay taxes that are due on the dividends. Hence, the ex-day prices of ADRs will on average fall by less than the amount of the taxable dividend since ADRs are subject

to dividend income tax under both U.S. and foreign regulations. In other words, we may observe abnormal returns on ex-days. To formalize this reasoning, we define the after-tax rate of return on the *i*th ADR as:

$$\tilde{R}_{i,t}^{\tau} \equiv \frac{\tilde{P}_{i,t} - P_{i,t-1}}{P_{i,t-1}}(1 - \tau_{i,g}) + \frac{D_{i,t}}{P_{i,t-1}}(1 - \tau_{i,d} - \tau_{i,f}) \quad (i)$$

Where  $\tilde{R}_{i,t}^{\tau}$  is the after-tax rate of return on day *t* to the marginal investor in the *i*th ADR under U.S. regulations;  $\tilde{P}_{i,t}$  is the price of the *i*th ADR at the end of day *t*;  $\tau_{i,g}$  and  $\tau_{i,d}$  are the present values of the capital gain and dividend income effective tax rate of the marginal investor for the *i*th ADR under U.S. tax regulations, respectively;  $\tau_{i,f}$  is the foreign factor, which is defined as the excess value of the foreign withholding tax rate that exceeds the foreign tax credit boundary under U.S. jurisdiction for the *i*th ADR dividend income; and  $D_{i,t}$  is the dividend paid per share for the *i*th ADR on day *t*. By taking the expectations for equation (i) and rearranging terms, we obtain:

$$E(\tilde{R}_{i,t}^{\tau}) = E(\tilde{R}_{i,t})(1 - \tau_{i,g}) - \frac{D_{i,t}}{P_{i,t-1}}(\tau_{i,d} + \tau_{i,f} - \tau_{i,g}) \quad (ii)$$

Where  $E(\tilde{R}_{i,t}) = \frac{E(\tilde{P}_{i,t}) - P_{i,t-1} + D_{i,t}}{P_{i,t-1}}$  is the expected pre-tax rate of return on day *t* for the *i*th ADR. If the expected after-tax rates of return are constant over time, then  $E(\tilde{R}_{i,t}^{\tau}) = E(\tilde{R}_i^{\tau})$ , for all *t*. Equation (ii) can be written as:

$$E(\tilde{R}_{i,t}) = \gamma_{0,i} + \gamma_{1,i}d_{i,t} \quad (\text{iii})$$

Where

$$\gamma_{0,i} = \frac{E(\tilde{R}_{i,t}^\tau)}{(1 - \tau_{i,g})}$$

$$\gamma_{1,i} = \frac{(\tau_{i,d} + \tau_{i,f} - \tau_{i,g})}{(1 - \tau_{i,g})}, \quad d_{i,t} \equiv \frac{D_{i,t}}{P_{i,t-1}}$$

Equation (iii) captures the essence of the tax hypothesis in its simplest form. Because dividend yields ( $d_{i,t}$ ) are zero on all days except the ex-day, the tax effects of dividends will only be reflected in the ex-day returns. In equation (iii), the tax factor  $\gamma_{1,i}$  and dividend yield  $d_{i,t}$  are attributed to the tax premium ( $\gamma_{1,i}d_{i,t}$ ). The dividend yield  $d_{i,t}$  is a positive function of the required rate of pre-tax returns  $E(\tilde{R}_{i,t})$  on ex-dividend days, if the marginal investor's tax rate on dividend income, including U.S. and foreign taxation ( $\tau_{i,d} + \tau_{i,f}$ ), is greater than the present value of the capital gains tax rate  $\tau_{i,g}$ , namely, ( $\gamma_{1,i} > 0$ ). When the dividend yield is high, ADR investors are subject to an extra tax liability ( $\tau_{i,f}d_{i,t}$ ) that causes the tax premiums ( $\gamma_{1,i}d_{i,t}$ ) to increase significantly. Such tax premiums result in apparently abnormal returns on ex-dividend days for ADRs with high dividend yields. ADR investors are thus more inclined to sell ADRs cum-dividend and repurchase ADRs ex-dividend. To analyze the effect of dividend yields on ex-day abnormal returns, this paper seeks to test the following hypothesis:

H1: ADR excess returns on ex-dividend days are positively associated with the dividend yield.

### Ex-day excess volumes

We follow Michaely and Vila (1995) in our model of ex-dividend day trading activities. Ex-day excess trading is determined in the following manner:

$$V_{i,t} = \frac{1}{2} D_{i,t} \left\{ \sum_{j=1}^N |(\alpha_j - \bar{\alpha})(K_j / \sigma_e^2)| \right\} \quad (\text{iv})$$

Where  $D_{i,t}$  is the amount of dividend paid per share for ith ADR on day t,  $K_j$  is the level of risk to tolerance for investor j.  $\bar{\alpha}$  is the average preference for dividends versus capital gains in the economy, weighted by investors levels of risk tolerance  $K_j$ .  $\sigma_e^2$  is the total risk of a stock, and N is the total number of investors in the economy. Equation (iv) indicates that trading volume is a positive function of the dividend yield  $D_{i,t}$ . This paper offers the following hypotheses:

H2: ADR excess volumes on ex-dividend days are positively associated with the dividend yield

### The Relation between ex-day excess returns and volumes

Under U.S. regulations, some institutional investors are exempt from dividend income tax<sup>1</sup>, so these tax-exempt organizations are tax-

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<sup>1</sup> Tax-exempt organizations include corporations organized under Act of Congress, title holding corporations for exempt organizations, teachers' retirement fund associations, benevolent life insurance associations, mutual ditch or irrigation companies, mutual or cooperative telephone companies, cemetery companies, state chartered credit unions, mutual reserve funds, mutual insurance companies or associations, cooperative organizations to finance crop operations, employee funded pension trusts, black lung benefit trusts, withdrawal liability payment funds, title holding corporations or trusts with multiple parents, state-sponsored high-risk health coverage organizations, state-sponsored worker's compensation reinsurance organizations, religious and apostolic associations, cooperative hospital service organizations, cooperative service organizations of operating educational organizations, child care organizations, and farmers' cooperative associations.

privileged. Other investors are subject to a differential marginal tax rate on dividend income in accordance with investor income levels. The differential tax obligations for investors with various status and income levels give rise to investor heterogeneity. For institutional investors (including corporations and tax-exempt organizations), dividends are on average less tax-disadvantaged relative to capital gains than for individual investors (e.g., Dhaliwal et al., 1999; Allen et al., 2000; and Dhaliwal et al., 2003). This means that, on average, dividend income, compared to capital gains, is worth relatively more to an institutional investor than it is to an individual investor.

In contradiction of dividend income tax imposed on U.S. stocks, ADR dividend incomes are subject to two kinds of taxes; one is dividend income tax under U.S. jurisdiction and the other is the foreign withholding tax (imposed on ADR dividend income) to the country where the company that issues the ADR is located. Because all ADR investors who pay foreign dividend withholding tax are only eligible for a foreign tax credit bound to the U.S. effective tax rate according to Section 904 of the Internal Revenue Code, the total amount of tax they have to pay for an ADR dividend income is the foreign tax liability and the excess portion that U.S. effective tax rates exceed the foreign tax rates. Foreign tax liability is the minimum of the taxation imposed on ADR dividend income. Especially, the foreign tax rate for a given dividend distribution remains constant across all of the ADR investors regardless of U.S. status and income levels, so identical foreign tax rates enable American depositary receipt (ADR) investors to be more homogenous in taxation than U.S. stock holders.

In particular, as the foreign tax rate imposed on dividend income is fairly high, the U.S. effective tax rate is unlikely to be higher than the foreign tax rates. Hence, ADR investors equally have to pay the foreign tax liability. The tax ratio paid by individual investors is the same as that paid by institutional investors. This consistently encourages ADR investors to sell stocks cum-dividend and to

repurchase stocks on ex-dividend days. Excess returns are contemporaneously relevant to excess volumes on ex-days. Because of this, the hypothesis is offered:

H3: ADR excess returns on ex-dividend days are positively associated with excess volumes.

## DATA AND SAMPLE

We constructed a sample of ADR distributions from the Center for Research in Securities Prices (CRSP) database, consisting of cash distributions over the period from 1988 to 2004. The CRSP database provides ex-dividend date and rates of returns for each ADR. To include the ADRs with complete data, this paper has summarized 5,715 cash distributions for 455 firms from 17 different countries. The final sample is composed of 331 NYSE-listed, 7 AMEX-listed, 117 NASDAQ-listed ADRs with 3,980, 115, and 1,620 cash distributions, respectively. Table 1 presents the sample distribution by country.

## METHODOLOG

### Estimation of excess returns and excess volumes

This paper employs Serra (2000) two-factor models to explore the excess returns. This paper defines the ex-dividend days as day 0. Negative (positive) days represent days prior (subsequent) to the ex-days. The estimation interval represents the periods from day -260 to day -11 and the ex-dividend interval represents the periods from day -10 to day 10. We utilize the data in the estimation interval to measure the parameters in equation (1):

$$R_{i,t} = \alpha_i + \beta_i^{ADR} R_{crsp,t} + \beta_i^{OR} R_{m,t} + \varepsilon_{i,t} \quad (1)$$

Where  $R_{i,t}$ ,  $R_{crsp,t}$  and  $R_{m,t}$  are the rates of return on day t for ADR i, the CRSP weighted index, Datastream weighted market index for the mth country where the ADR is issued.

Table 1 Sample distribution

Country	Observations	Firm number
ARGENTINA	130	17
AUSTRALIA	367	19
BRAZIL	249	15
CHILE	463	32
CHINA	113	24
FRANCE	188	34
IRELAND	111	9
ISRAEL	130	12
ITALY	132	21
JAPAN	753	44
MEXICO	259	32
NETHERLANDS	265	19
NEW ZEALAND	102	10
SOUTH AFRICA	352	21
SPAIN	267	8
SWEDEN	128	19
UNITED KINGDOM	1706	119
Total	5715	455

After the regression (1) is performed in the estimation interval, we obtain the parameters  $\hat{\alpha}_i$ ,  $\hat{\beta}_i^{ADR}$ ,  $\hat{\beta}_i^{OR}$ . This paper captures the risk factors by beta coefficients  $\hat{\beta}_i^{ADR}$  and  $\hat{\beta}_i^{OR}$ . The sample firms in our research execute cash dividend distributions for several times.

However, risk factors  $\hat{\beta}_i^{ADR}$ ,  $\hat{\beta}_i^{OR}$  are estimated for each cash distribution event which occurs in different time because Jurun, Pivac and Arnerić (2007) emphasize the time-varying risks factors. This paper then applies equation (1) to calculate the expected returns,  $E(R_{i,t}) = \hat{\alpha}_i + \hat{\beta}_i^{ADR} R_{crsp,t} + \hat{\beta}_i^{OR} R_{m,t}$ . We then calculate the actual returns minus the expected returns to measure the excess return  $AR_{i,t}$  for the  $i$ th ADR on day  $t$  during the ex-dividend periods using equation (2) below.

$$AR_{i,t} = R_{i,t} - (\hat{\alpha}_i + \hat{\beta}_i^{ADR} R_{crsp,t} + \hat{\beta}_i^{OR} R_{m,t}) \quad (2)$$

The excess trading volume is estimated as the daily trading volume minus daily normal trading volume during event period as proposed by Michaely and Vila (1995). We define normal daily trading volumes  $NV_i$  as the mean of daily trading volume during the non-event periods as equation (3), so excess trading volume during event (ex-dividend) period  $AV_i$  is as equation (4).

$$NV_i = \frac{\sum_{t \in [-40, -10] \cup [10, 40]} Vol_{i,t}}{60} \quad (3)$$

$$AV_{i,t} = \frac{EV_{i,t}}{NV_{i,t}} - 1 \quad t \in [-10, 10] \quad (4)$$

Where  $EV_{i,t}$  and  $VOL_{i,t}$  are the daily trading volumes during the event (ex-dividend) period and non-event period, respectively.

### Regression test

After calculating the excess returns and excess volume, we employ OLS, 2SLS, and 3SLS to estimate the determinants of excess trading behaviors considering the contemporaneous movement of returns and volumes. We construct simultaneous equation systems (5):

$$\begin{aligned} AR_{0,it} &= \omega_0 + \omega_1 AV_{i,t} + \omega_2 Yield_{i,t} + \omega_3 Tran_{i,t} + \omega_4 \hat{\beta}_{i,t}^{ADR} + \omega_5 \hat{\beta}_{i,t}^{OR} + \varepsilon_{1i,t} \\ AV_{0,it} &= \gamma_0 + \gamma_1 AR_{i,t} + \gamma_2 Yield_{i,t} + \gamma_3 Tran_{i,t} + \varepsilon_{2i,t} \end{aligned} \quad (5)$$

Where  $AR_{0,it}$  and  $AV_{0,it}$  are the excess return and excess volume on ex-days (day 0).  $Yield_{i,t}$  is computed as the cash dividend divided by the

price.  $Tran_{i,t} = \frac{bid_{i,t} - ask_{i,t}}{(bid_{i,t} + ask_{i,t})/2}$  is the ex-day bid-ask spread and is calculated from the bid minus ask prices divided by the average bid

and ask prices for the  $i$ th ADR at time  $t$ .  $\hat{\beta}_{i,t}^{ADR}$  and  $\hat{\beta}_{i,t}^{OR}$  are beta coefficients estimated from CRSP index and the local market index

where the  $i$ th ADR is issued, so  $\hat{\beta}_{i,t}^{ADR}$  and  $\hat{\beta}_{i,t}^{OR}$  capture the risk factors. Because Nagase, Scott, Yoshika, Araki, and Nakamura (2004), along with Caballero, Ahmed, Azhar (2004) emphasize that risk management is critical in making decisions, the two risk factors based on conventional financial theory are included in the regression (5).

This research examines the significance of the coefficients  $\omega_2$  and  $\gamma_2$  by t-statistics to test the hypothesis H1 and H2, respectively. In addition, t-statistics also examines whether or not the coefficients  $\omega_1$  and  $\gamma_1$  are significant from zero to test the hypothesis H3 that indicates the relevance between excess returns and excess volumes on ex-dividend days.

## EMPIRICAL RESULTS

Average excess returns and volume from day -10 to +10 for our sample firms are presented in Figure 1. The patterns of excess returns and excess volume approximately run together around the exdividend periods. Especially, excess returns and excess volume dramatically jump precisely on exdays. Because ADR investors are more homogenous in dividend income taxation, they accelerate their sales prior to exdays and consistently repurchase ADRs exactly on exdays. As a result, both the excess returns and excess volumes are obviously observed on exdays and the finding suggests tax-motivated trading activities.

The OLS, 2SLS, and 3SLS estimation results are exhibited in Table 2. Excess returns reveal significantly positive relationships with dividend yield under the 3SLS, 2SLS and OLS estimations of the first equation. When the dividend yield is high, ADR investors are to a larger extent subject to an extra tax liability withheld by the foreign tax jurisdiction. This leads to the sale of ADRs cum-dividend and the consistent acquisition of ADRs ex-dividend. As a result, positive associations between ADR excess returns and dividend yields. The result is consistent with hypothesis H1 that states the tax impact on ADR investor behaviors.

Table 2 3SLS, 2SLS, and OLS estimation results of the excess trading behavior regressed on tax, transaction costs and risk factors

$$\begin{aligned}
 AR_{0,it} &= \omega_0 + \omega_1 AV_{i,t} + \omega_2 Yield_{i,t} + \omega_3 Tran_{i,t} + \omega_4 \beta_{i,t}^{ADR} + \omega_5 \beta_{i,t}^{OR} + \varepsilon_{1i,t} \\
 AV_{0,it} &= \gamma_0 + \gamma_1 AR_{i,t} + \gamma_2 Yield_{i,t} + \gamma_3 Tran_{i,t} + \varepsilon_{2i,t}
 \end{aligned}
 \tag{5}$$

The result of the OLS estimation shows that the dividend yield is positively related to the excess volume, but the relation is not significant. The result does not support hypothesis H2. Furthermore,

exday excess returns are significantly related to excess volumes under 3SLS estimations. This suggests the interactive relations between excess returns and excess volume during exdividend days, consistent with hypothesis H3. On the other hand, this positive relationship is not statistically significant under OLS or 2SLS estimations. Because 3SLS consider the contemporaneous covariance between error terms, the 3SLS estimators are asymptotically efficient.

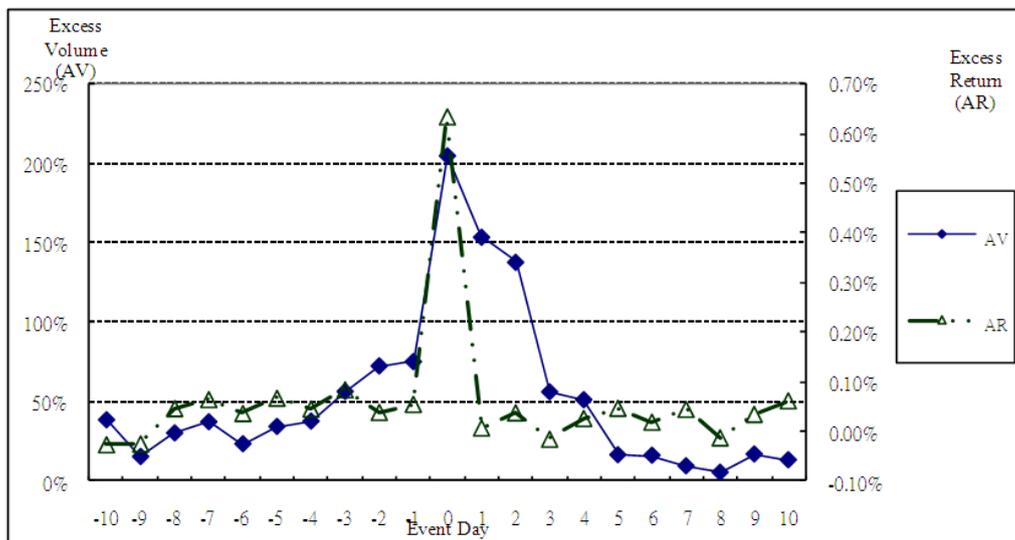


Figure 1 Excess trading behavior during ex-dividend period

In general, the coefficients of transaction costs are positive and highly significant under the 3SLS, 2SLS and OLS estimations of the first equation.

Table 2 3SLS, 2SLS and OLS estimation results

	3SLS	2SLS	OLS
<b>Panel A : Equation 1</b>			
Intercept	0.0045 (2.74)***	0.0064 (3.18)***	0.0024 (2.92)***
$AV_{i,t}$	0.0011 (2.23)**	0.0006 (0.90)	0.0004 (0.41)
$Yield_{i,t}$	0.0062 (2.58)**	0.0061 (2.53)**	0.1069 (10.66)***
$Tran_{i,t}$	0.1951 (8.99)***	0.1898 (8.67)***	0.2102 (11.51)***
$\beta_{i,t}^{ADR}$	-0.0052 (-9.58)***	-0.0059 (-9.87)***	0.0002 (0.29)
$\beta_{i,t}^{OR}$	-0.0013 (-1.57)	-0.0014 (-1.43)	-0.0009 (-0.78)
R2 (%)	24.26	4.09	5.40
<b>Panel B : Equation 2</b>			
Intercept	1.9549 (3.47)***	2.4162 (4.24)***	3.1941 (5.35)***
$AV_{i,t}$	173.5742 (2.39)**	76.2937 (1.02)	7.5474 (0.40)
$Yield_{i,t}$	-1.2424 (-0.53)	-0.6229 (-0.26)	5.7405 (0.45)
$Tran_{i,t}$	-41.6801 (-1.64)	25.6456 (-0.84)	-16.2010 (-0.70)
R2 (%)	2.21	0.20	0.02

T-statistics in parentheses

\*Significant at the 10% level.

\*\*Significant at the 5% level.

\*\*\*Significant at the 1% level.

This implies that investors may engage in trading activities only when the returns from the trading activities exceed the transaction costs. Only when the ADR returns can cover the transaction costs, can ADR investors engage in trading. Thus, the excess returns increase with our transaction costs in our study. Furthermore, we find the ADR risk factors  $\hat{\beta}_{i,t}^{ADR}$  or  $\hat{\beta}_{i,t}^{OR}$  decrease their ex-day excess returns.

## CONCLUSION

Previous studies have not well discussed the ex-day simultaneous relationships between excess returns and excess trading volume through dividend yield factors. ADR unique setting provides us to apply 3SLS to obtain more robust result of the tax-induced behaviors. We find that ex-day excess returns run positively to the dividend yields but constrained by the transaction cost and firm's risk. Because high dividend yields increase foreign tax liability for ADR investors, investors are more inclined to sell ADRs cum-dividends and repurchase ADRs on ex-days. This suggests that excess returns are driven by the foreign tax factors. Furthermore, our empirical results reveal a significantly positive relationship between the excess returns and excess volumes on ex-dividend days. The finding is consistent with tax-motivated hypothesis and specifically supports the casual relevance of ex-day returns and volumes from ADR markets.

## REFERENCES

Allen, F., Bernardo, A.E. and Welch, I., A theory of dividends based on tax-clienteles, *The Journal of Finance*, 55(6), 2000, 2499-2536.

- Armitage, S., Hodgkinson, L. and Partington, G., The market value of UK dividends from shares with differing entitlements, *Journal of Business Finance & Accounting*, 33(1,2), 2006, 220-244.
- Bali, R. and Hite, G.L., Ex dividend day stock price behavior: discreteness or tax-induced clienteles?, *Journal of Financial Economics*, 47(2), 1998, 127-159.
- Barclay, M.J., Dividends, taxes, and common stock prices: the ex-dividend day behavior of common stock prices before the income tax, *Journal of Financial Economics*, 19, 1987, 31-44.
- Bartholdy, J. and Brown, K., Ex-dividend day pricing in New Zealand, *accounting and finance*, 39(2), 1999, 111-129.
- Caballero, A., Ahmed, S. and Azhar, S., Risk evaluation using a fuzzy logic model, *WSEAS Transactions on Business and Economics*, 1(1), 2004, 18-23.
- Callaghan, S.R. and Barry C.B., Tax-induced trading of equity securities: evidence from the ADR market, *The Journal of Finance*, 2003, 1583-1611.
- Chay, J.B., Choi, D. and Pontiff, J., Market valuation of tax-timing options: evidence from capital gains distributions, *The Journal of Finance*, 61(2), 2006, 837-865.
- Cyrus, T.L., I Scan, T.B. and Starky, S., Investor protection and international investment positions: an empirical analysis, *International Finance*, 9(2), 2006, 197-221.
- Dhaliwal, D.S., Erickson, M. and Trezevant, R., A test of the theory of tax clienteles for dividend policies, *National Tax Journal*, 52(2), 1999, 179-194.
- Dhaliwal, D.S., Li, O.Z. and Trezevant, R., Is a dividend tax penalty incorporated into common stock return?, *Journal of Accounting and Economics*, 35(2), 2003, 155-178.
- Dhaliwal, D. and Li, O.Z., Investor tax heterogeneity and ex-dividend day trading volume, *The Journal of Finance*, 61, 2006, 463-490.

- Dubofsky, D.A., A market microstructure explanation of ex-day abnormal returns, *Financial Management*, 21(4), 1992, 32-43.
- Eades, K.M., Hess, P.J. and Kim, E.H., On interpreting security returns during the ex-dividend period, *Journal of Financial Economics*, 13, 1984, 3-34.
- Elton, E.J. and Gruber, M.J., Marginal stockholder tax rates and the clientele effect, *Review of Economics and Statistics*, 52, 1970, 68-74.
- Elton, E.J., Gruber, M.J. and Blake, C.R., Marginal stockholder tax effects and ex-dividend day price behavior: evidence from taxable versus nontaxable closed funds, *Review of Economics and Statistics*, 87, 2005, 579-586.
- Frank, M. and Jagannathan, R., Why do stock price drop by less than the value of the dividend?, Evidence from a country without taxes, *Journal of Financial Economics*, 47(2), 1998, 161-188.
- Jakob, K. and Ma, T., Tick size, NYSE rule 118, and ex-dividend day stock price behavior, *Journal of Financial Economics*, 72(3), 2004, 605-623.
- Jurun, E., Pivac, S. and Arnerić, J., Historical and prognostic risk measuring across stocks and markets, *WSEAS Transactions on Business and Economics*, 4(8), 2007, 126-134.
- Kalay, A., The ex-dividend day behavior of stock prices: a re-examination of the clientele effect, *The Journal of Finance*, 37(4), 1982, 1059-1070.
- Lakonsihok, J. and Vermaelen, T., Tax-induced trading around ex-dividend behavior, *Journal of Finance Economics*, 16(3), 1986, 287-319.
- Lasfer, M.A., Ex-day behavior: tax or short-term trading effects, *The Journal of Finance*, 50(3), 1995, 875-897.
- Lasfer, M.A., Taxes and dividend: the UK evidence, *Journal of Banking and Finance*, 20(3), 1996, 455-472.

- McDonald, R.L., Cross-border investing with tax arbitrage: the case of German dividend tax credits, *The Review of Financial Studies*, 14(3), 2001, 617-646.
- Michaely, R., Ex-dividend day stock price behavior: the case of the 1986 tax reform act, *The Journal of Finance*, 46(2), 1991, 845-859.
- Michaely, R. and Vila, J.L., Investors heterogeneity, prices and volume around the ex-dividend day, *Journal of Financial Markets*, 3, 1995, 83-111.
- Nagase, T., Scott, R., Yoshika, Y., Araki, T. and Nakamura, T., The risk and response implications of security and privacy in digital society: a four sector analysis, *WSEAS Transactions on Business and Economics*, 1(1), 2004, 139-142.
- Poterba, J.M. and Summers, L.H., New evidence that taxes affect the valuation of dividends, *The Journal of Finance*, 39(3), 1984, 1397-1415.
- Serra, A.P., The valuation impact of dual-listing on international exchanges: the case of emerging markets' stocks, *Emerging Markets Review*, 1, 2000, 127-151.
- Shaw, W.H., An examination of ex-dividend day stock price movements: the case of nontaxable master limited partnership distributions, *The Journal of Finance*, 46(2), 1991, 755-771.

## **Business Environment and Firms Performance in Developing Countries**

Alidou Ouedraogo  
Faculty of Management  
University of Moncton  
Moncton (New Brunswick) E1A 3E9 Canada  
Email: Alidou.ouedraogo@umoncton.ca

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### **ABSTRACT**

*This article investigates the sources of firms' performance in developing countries. To this aim, this study considers performance models for Réunion Island firms, an ultra-peripheral territory of the European Union. First, different theoretical approaches dealing with performance are presented. Then, a study examining 118 of the 250 largest Reunionese firms is described. With the collected data, we identify management factors. These are analyzed using a typological regression algorithm based on the GUIROEM genetic algorithm. This article analyzes the relationships governing performance levels, economic sectors, and implemented strategies. It shows firms' reticence towards adopting partnerships to help develop performance. Some limitations of this study are described, and potential avenues for development are presented.*

**Keywords:** *Business Environment, Performance, Developing Country*

## INTRODUCTION

The search of performance has always been a fundamental issue for firms. That is why studies on corporate performance were prioritized in the groundbreaking works of strategic management researchers (Drucker, 1954; Chandler, 1962; Ansoff, 1965; Andrews, 1971). Nonetheless, results were not always convincing. For instance, Peters & Waterman's 1982 study, *In Search of Excellence*, suggested that the firms that performed best were those who sold good products and were well-positioned in the market. Years later however, it was noted that more than half of these so-called "excellent" firms met different fates; most of them suffered numerous setbacks (Miller, 1990). Tarondeau (1993) and Dunning (1995) attribute this phenomenon to new developments in technology and the manner in which the global competition structure had evolved.

For their part, Hamal and Prahalad (1994) argue that the firms who achieve sustainable performance are those who control unique and hard-to-access key market resources. So, how does one explain corporate performance? Why do firms perform differently? What are the causes behind corporate performance? The first studies on this phenomenon were those of American researchers (Schmalensee, 1985; Rumelt, 1991; McGahan and Porter, 1997; Mauri and Michaels, 1998). Most researchers cite both the impact of the industry as well as resources and skills as being the main factors that influence corporate performance. However, those studies examined only American firms; moreover, few comparative studies were available. Ngobo and Stephany's 2001 study on French firms of the SBF 250 (the SBF 250 index contains 250 values – the most representative of each sector of the Paris Stock Exchange) provides a basis for such a comparison. In their research on the differences between French firms' performances, these authors posit conclusions similar to those of most American authors.

Nonetheless, the French authors disagree with previous researchers on certain points, and also offer new perspectives on the matter. This diversity of perspectives shows that the perception of differences between firms is highly dependent on the context in which they develop. This is the problematic underlying our research, which looks at Réunion Island's most important firms, and studies the performance and competitiveness of geographically isolated firms. This isolation is due to the distance that separates these firms from the activity centre on which they rely politically and economically. In this context, there is usually a small domestic market, high economic-based costing, insufficient capital, a lack of qualified workers in the labor force, and a strong external reliance (Boyer & al., 2004). For firms evolving in this regional context, constraints are related not only to changes at the international level but also to geographical limitations.

The purpose of this study is to further our understanding of the notion of performance in this context. To this aim, it is important to better understand the different strategies implemented by comparing management and performance indicators. This article is structured in three parts. The first part summarizes the groundbreaking works dealing with corporate performance. The next section deals with methodology. An explanation of the study methodology for the ECER study is provided. Finally, the third section exposes the results of our research. Regression models for each class are outlined and commented upon. The conclusion describes the main results of the study as well as research perspectives.

## **LITERATURE REVIEW**

Research identifies two main sources for corporate performance: an external one, where performance is linked to the industry and an internal one where it is linked to skills and resources.

### **Corporation's Position in The Industry as a Factor Influencing Performance**

In the United States, the first studies on performance results emphasized the industrial sector (Schmalensee, 1985; Rumelt, 1991). These studies reflect the paradigm of the industrial economy dominant at the time. They investigate the influence of both the industrial sector and the heterogeneity of firms on performance. The first results tend to confirm the impact of the industrial sector on performance. This is clearly shown by Schmalensee's (1985) and Wernerfelt and Montgomery's (1988) results. According to this paradigm of the industrial economy, a firm's capacity to obtain a profit rate superior to capital costs depends on two factors: the appeal of the industry in which it operates and the establishment of a competitive advantage over its competitors (Porter, 1980; 1985).

Consequently, according to this approach, competitive advantages are determined by a firm's position within a certain industry. Moreover, this method presupposes that all firms have a relatively unrestricted access to the resources that influence market forces. This explanation of how a firm secures a competitive advantage is empirically weak (Rumelt, 1991). In fact, most studies on this theme fail to establish significant links between an industry's general characteristics and the profitability of its constituent firms (Rumelt, Schendel & Teece, 1991; Rumelt, 1991; Hansen & Wernerfelt, 1989). For instance, Rumelt's 1991 works show that performance discrepancies between individual firms within the same industry are significantly more important than those that exist between different industries (an industry's performance is perceived as representing the calculated mean of performances of an industry's firms).

This conclusion suggests that competitive advantages may not always result from a firm's position, as suggested by Porter, but may

also stem from internal factors such as a firm's distinct skills and resources.

### **Corporation's Focusing on Skills and Resources as Factor Influencing Performance**

Skills and resources are composed of the entire assets (tangible and intangible) associated in a quasi-permanent manner to a firm (Barney, 1991). The skills and resources approach stipulates that the implementation of a firm's skills and resources can lead to a sustainable competitive advantage and, consequently, to superior performance. This approach is grounded in Ricardian rent research rather than the exploitation of monopoly rent (as favored by classic industrial economy). Thus, according to this approach, a competitive advantage based on skills and resources is contingent on the concomitant existence of three characteristics: the strategic value of a firm's skills and resources (Barney, 1991; Grant, 1991), the rarity of the skills and resources (Barney, 1991; Collis & Montgomery, 1995) and skills and resources that can't be imitated or substituted (Dierickx, Cool & Barney, 1989).

Rarity refers to the situation where skills and resources are distributed heterogeneously among an industry's firms. When resources are shared between several competing firms, this situation does not result in steady competitive advantages. Resources should be owned by a restricted number of firms - one, ideally, according to Barney (1991). Moreover, a skill or a resource should be hard to imitate perfectly and hard to substitute (Barney, 1991). Concepts of non-imitation and non-substitution of skills and resources (Dierickx, Cool & Barney, 1989) indicate that a firm's skills and resources are immobile (cannot be imitated or substituted by a firm's competition) either because obtaining a competitive advantage is ambiguous (causal ambiguity), or the application of skills and resources requires complex interactions within a firm (social complexity), or because skills and

resources have emerged through unique historical development (historical factor).

With regards to imitation, skills or resources must be hard to imitate, thereby keeping the competition from imitating a firm's strategy (Dierickx, Cool & Barney, 1989). In general, a firm's production processes are hard to imitate when the factors that enable superior performance are not clearly identifiable and when the mobility of factors of production is imperfect because certain specific assets are associated with either implicit know-how or exclusive property rights (Barney, 1991). In the same vein, if a skill or a resource is to maintain its strategic value, it must be hard to substitute (Barney, 1991; Collis & Montgomery, 1995).

Some studies confirm the importance of skills and resources in a firm's performance. Roquebert et al (1996) show that diversification accounts for 17.9% of observed differences whereas sector accounts for 10% of observed differences. In their 1997 study, McGahan and Porter (1997) reveal that the differences observed between firms account for 31.71% of the variation, whereas 4.33% is explained by diversification and 18.68% by sector. According to Mauri and Michaels (1998), differences between firms account for 18.55% to 29.84% of variations in performance. Recently, Ngobo and Stéphanie (2001) have shown that a firm's heterogeneity accounts for 37.1% to 52% of variations in performance, whereas diversification and sector account for 2.3% to 6.3%, and 18.4% to 23.69%, respectively. The impact of resources in a firm's performance has thus been measured in many studies and in different contexts.

Methodologically, however, measuring and explaining performance still gives rise to numerous debates (see for instance Raymond (2002) and Carrier et al (2002), for a synthesis in the field of information systems). In our study, the objective is to further comprehend the models applied by entrepreneurs. Objective measurement of performance is of no interest here. The aim of this exploratory study is

to identify the models used by different classes of entrepreneurs. A sufficient indicator is thus an entrepreneur's perception of the evolution of his/her firm's performance, since this reveals the links between a perceived performance and factors in different management fields. Moreover, since the aim is not to identify existing models, the explanatory factors taken into account are derived from perceptual data and were developed in the ECER study that follows.

## **METHODOLOGY**

### **Context of the Study**

This study focuses on Réunion Island firms and is part of a wider research project called the Competitive Study of Reunionese Enterprises (ECER), the Study of Competitiveness amongst Réunion Island firms. The first step in this study mobilized the GREGEOI-FACIREM researchers from September 2001 to June 2003. The aim was to identify the general characteristics of Réunion Island's most important firms. The insular context, on the one hand, and remoteness from the metropolis, on the other, constrains firms to adopt different and even original operation modalities. In order to identify the most interesting elements with regards to competitiveness, it was necessary to understand how these "successful" firms operate.

After this first step, a report on financing sources and partner firms was completed. The synthesis document contains the different results for each work theme (as previously identified by Boyer M. & al 2002). The results presented below were obtained from the data compiled in this first step.

### **Perimeter of the Study**

The list of firms was taken from the SIRENE file (a data bank of firms belonging to the *Institut national de la statistique et des études économiques*, INSEE, France). The study looks at Réunion Island's 250

largest firms. The criteria used to select participating firms are the number of employees and the firm's sales. All the firms' headquarters are located on Réunion Island. However, some of the firms' activities take place elsewhere. This is the case in particular of many groups whose activities take place in the Indian Ocean (for instance Mauritius, Madagascar, Mayotte) and the Metropolitan (French) territories.

Of the 250 firms contacted, 118 agreed to participate in the ECER study. The principal characteristic of these firms is that they are young: more than 53 % have been operating for less than 20 years. Accordingly they are small: firms have an average of 144 employees and 30.5 % of them have less than 50 employees.

Table 1 Sample composition

	Industry	Construction	Commercial	Service	Total
ECER % breakdown	16.9%	12.7%	30.5%	39.8%	100%
INSEE % breakdown	10.6%	12.6%	30.9%	45.9%	100%
Gap (Sample/ICS)	6.4	0.1	-0.3	-6.1	
Comments	Over- represented	Well- represented	Well- represented	Under- represented	

a. Designing and managing the questionnaire

In order to obtain a proper comparison between firms, the research team created a questionnaire that focused on the main areas of management: marketing, strategy, information systems, human resources management, logistics, and finance. Considering the numerous fields to include as well as the exploratory nature of this study, the research team voluntarily limited the number of questions. Thus, the indicators that were retained do not attempt to measure a precise concept; in fact, they seek to qualify the main managerial fields within large Reunionese firms. A number of professionals - economic

experts - filtered the indicators. At the end of this process, slightly more than 100 effectiveness indicators were selected to cover, in a pertinent fashion, the different management fields in the Reunionese context.

Questionnaires were administered by interview with a firm's CEO or representative and one of the lab's researchers. When this process ended, 118 questionnaires had been answered which represents a rate superior to 47%.

### **Variables**

The questionnaire contained more than 150 items. For the scope of this article, we limited ourselves to items directly related to our subject matter.

Dependent variables: the following performance indicators were used:

- Sales Figures evolution: "Will sales figures increase or decrease next year?"
- Operating results evolution: "Will operating results increase or decrease next year?"
- Indebtedness evolution: "Will indebtedness increase or decrease next year?"

These indicators were coded on a 7 point scale, ranging from 1 (very strong decrease) to 7 (very strong increase). We must note that these variables are perceptual data provided by the firm's representative. The use of these variables for the purpose of this research is motivated by the fact that we had limited access to accounting data. During the interview process, permission was asked to consult financial statements and research was also undertaken in legal databases. However, ultimately, collected data was insufficient for statistical treatment. Insular context is not favorable to information disclosure, and the number of shareholders who possess

this information is limited by capital structure. Consequently, the following results do not concern themselves with explaining the evolution of indicators (sales figures, operating results, and indebtedness) but show, rather, how the evolution of these indicators is perceived by the firm's representative.

#### Explanatory factors

##### a. Factorization criteria

Descriptors used cover five wide areas: Information Systems, Strategy and Management, Human Resources Management, Competitive Intelligence Practices and Improvement Practices. These descriptors were factorized using the likelihood maximum method, thereby reducing the quantity of indicators to interpret.

The implementation of this factorization technique required testing the adequacy of data coverage. This verification was carried out both at a global level and for individual factors. At the global level, sample appropriateness was evaluated using Bartlett's sphericity test (Chi-square between random distribution and variables, 0 significance) and Kaiser-Mayer-Olkin's MSA (Measure of Sampling Adequacy) test, calculated at the global level (measure KMO in SPSS). The MSA test was also used for individual factors. In both cases – at the global and local levels – the test value had to be superior to 0.5. The factors considered were those whose eigenvalues were superior to 1 (Kaiser's rule).

##### b. Factors obtained

Based upon the tests mentioned above, different indicators were deleted. The remaining indicators helped identify seven factors which are presented below (with their indicators) in order of priority:

- F1 Dynamism and Partnership: factor focusing on the number of partners and initiative measurement.
- F2 Inward-Looking Dynamism: factor focusing on initiative measurement versus the number of partners.
- F3 Clientele Orientation: factor focusing on client satisfaction studies and satisfaction re pricing of main product versus initiative measurement and number of partners.
- F4 Product Orientation: factor focusing on main product price satisfaction, main product and equipment improvement, performance measurement, product quality satisfaction versus client satisfaction studies and initiative measurement.
- F5 Technical Improvement: factor linked to equipment and main product improvement, client satisfaction studies, R&D (research and development) versus main product price satisfaction, number of types of partners, and initiative measurement.
- F6 Competitive Intelligence and Anticipation: factor linked to analysis of commercial reports, competitive analysis, number of alliance areas and forecasting tools versus main product price satisfaction, number of types of partners, and client satisfaction studies.
- F7 Research and New Technology: factor linked to Internet use, R&D, price satisfaction, equipment improvement versus quality measurement, client satisfaction studies, number of alliance areas, and power relationships with competitors.

These factors were used as explanatory factors in the performance study. The approach used is described below.

### **Approach**

Processed Datum

This study aims to characterize different conceptions of performance as expressed by CEOs' of firms who participated in the ECER study. The suggested approach retains three indicators related to perceived performance: perceived evolution of sales, operating results and indebtedness. The classical approach identifies a common factor to these three dimensions and bases its analysis on this factor. We, however, adopt a different approach which consists of identifying regression models that account for the performance indicators applied.

Dependent variables are those listed hereinbefore: evolution of sales figures, operating results, and indebtedness. Explanatory factors are those selected: Dynamism and Willingness to Partnership, Inward-oriented Dynamism, Clientele Orientation, Product Orientation, Technical Improvements, Competitive Intelligence and Anticipation, and Research and New Technology.

Instead of applying a regression model that explains the evolution of sales, a second one explaining the evolution of operating results, and a last one for indebtedness evolution, another approach is selected. This approach researches classes of models that can explain the three types of dependent variables concomitantly. For each observation, three records are established. They share the same explanatory variables but do not share dependent variables. In total, this provides  $3 \times 118 = 354$  records which will be treated concomitantly with a typological regression procedure. As mentioned below, this procedure seeks to establish homogeneous classes, each with its specific regression model, thus minimizing the overall prediction error.

This approach is rich in that it characterizes different situations and interprets the manner in which classes are established. In fact, these indicators reflect performance, yet they may also intervene in a different way. For instance, during interviews, the CEOs of firms expressed a dual perception of indebtedness. Indebtedness can be linked to bad management, and thus be associated to weak performance, or, on the other hand, it can indicate development, and thus be associated to strong performance. This reflects an entrepreneur's aspirations as it relates to indebtedness (Julien and Marchesnay 1996). Given that, in typological regression, regression is not constrained to a specific type of indicator, it is possible to identify

record classes that share a regression model, irrespective of the type of dependent variable used.

### **Typological Regression Procedure**

This approach seeks to identify observation classes that share the same regression model. Many approaches are available to carry out this typological regression (Wedel and Steenkamp, 1989; Wedel and De Sarbo, 1995; Kamakura and Wedel 1997; Vermunt 2000, 2003, 2004, on the Web). Each approach presents certain limitations that can be overcome by using the typological regression GUIROEM algorithm, which automatically researches classes using an error minimizing criteria. Classes are established according to dependent variable prediction. This approach is advantageous in that it guides the construction of classes by determining the dependent variable instead of relying on structural properties (like the k means method, for instance). Each identified class corresponds to a regression model that allows an estimation of the dependent variable.

Based on genetic algorithm (GA) (Holland J.H., 1975; Goldberg D.E., 1989), this algorithm researches classes to minimize prediction error (SSE: Sum of Square Error) or regression models' proportion of variance explained (R<sup>2</sup>). The GA is combined to a method that obtains linear regression (method of least squares, neural networks...). A hybrid approach such as this is advantageous because it associates robustness, rapidity, and simultaneous exploration of solution space while limiting data fit analysis to parametric constraints. For a complete presentation, see Cucchi & Ouedraogo (2004).

This algorithm was used on the 354 (118\*3) records obtained during the ECER research project. Different configurations, ranging from 1 to 4 classes, were tested. For each one, the algorithm was repeated ten times. It was therefore possible to estimate the configuration's stability by observing performance variation. Moreover, observations were standardized in order to avoid scale difference issues. This manner of choosing the preferred solution is applied in the following paragraphs.

## RESULTS

### Global Results

The indicators used to measure regression quality on the global level were the sum of the squares of the errors (SSE), the multiple correlation coefficients  $R^2$ , and the Fisher-Snedecor test for all coefficients.

#### 1. Solution comparison

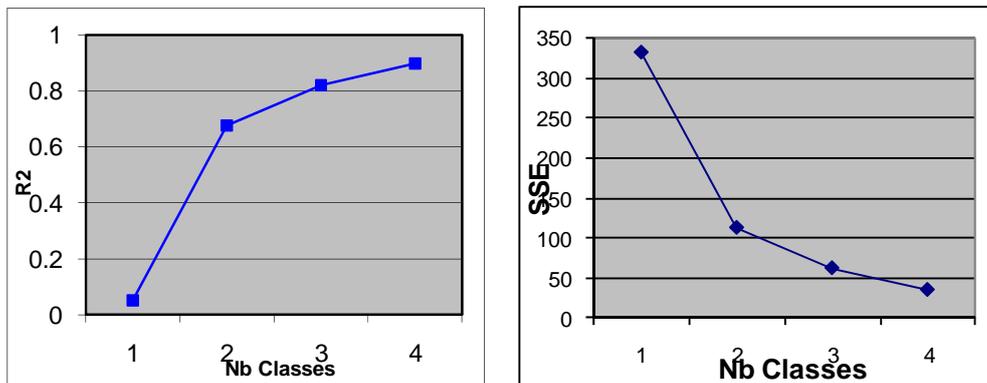


Figure 1:  $R^2$  and SSE evolution against the solution's number of classes.

The evolution curve of the SSE allows us to visualize performance improvement against number of classes. With an SSE superior to 300, it is obvious that simple regression of all coefficients is unsatisfactory. Two class (SSE = 113), three class (SSE = 63) and four class (SSE = 36) solutions prove more satisfactory in this regard. For the  $R^2$ , the graph shows a net improvement between dimensions 1 and 2. After that, the  $R^2$  evolves favorably, yet the range of improvement is smaller. It seems reasonable, for thriftiness reasons, to limit the number of classes to two or three.

**Table 2 R<sup>2</sup> adjusted by class according to solution dimension**

	R <sup>2</sup> adjusted / class			
	Cl1	Cl2	Cl3	Cl4
Sol in 2 Cl.	0.273	0.499	-	-
Sol in 3 Cl.	0.759	0.800	0.783	-
Sol in 4 Cl.	0.936	0.741	0.852	0.863

An observation of this table shows that the two class solution, albeit satisfactory at the global level, makes it impossible to obtain high R<sup>2</sup> levels for each class (0.273 for class 1, and 0.499 for class 2). Although this configuration strongly lessens the SSE and improves the R<sup>2</sup>, it does not enable us to obtain regression models that account for variances in each class. For these reasons, we chose to develop a solution in three classes

### **Results in Three Classes**

Results in classes can be termed in the following manner:

- Class 1 “Dynamic -”: firms whose dynamism is inferior to the sample mean. These firms are associated with the industry and construction sectors and practice a relatively high number of activities. Their main clients are usually SME type enterprises with more than 10 employees, and they tend to practice partnership.
- Class 2 “Dynamic +”: firms whose dynamism is superior to the sample mean. They are associated with the commercial sector and practice a relatively limited number of activities. Their main clients are, on one hand, the public in general and, on the other, public sector organizations and larger firms. They tend not to enter into partnerships and do not tend to disperse, whether in their activities or partnerships.

- Class 3 “Dynamic M”: firms that are within the sample mean. They are associated with the service sector and practice one to three activities. Their main clients are also the public in general on the one hand and public sector organization, large firms on the other hand. They are moderate partnership firms (between 0 and 4) and have the most average profile.

To better understand the different elements of this dynamic, it is necessary to interpret results specific to each class.

### **Description of regression models**

#### **a. Class 1 of “ Dynamic - ” firms**

The table below is obtained with the use of the SPSS software after selection of class 1 records. Detailed results are annexed. Class 1 represents the cases where dependent variable value is significantly lower than the sample mean. In this case, perceived evolution of performance indicators is least favourable than the sample mean.

Regression coefficients are as follows. In this table, all coefficients are significant and four (4) are positive: Dynamism and Partnership (0.751), Inward-Looking Dynamism (0.396), Competitive Intelligence/Anticipation (0.146), Research and New Technology (0.145). This means that firms in this class perceive improvements in performance when they show evident dynamism, particularly toward external partners but also internally. The coefficients of Intelligence, Internet and R&D activities are perceived as being less influential. Three coefficients are negative: Technical Improvement (-0.546), Clientele Orientation (-0.246), Product Orientation (-0.240). When these factors increase, perceived performance decreases. From this we may interpret that as factors increase, the more a firm will struggle. It

is important to note that these factors reflect internal processes and principles in the fields of production, clientele, and product.

Table 3 “Dynamic - ” regression coefficients

Model		Non-Standardized coefficients		Standardize dcoefficients	t	Signification
		B	Standard Error	Bêta		
(constant)		-.605	.050		-12.224	.000
Partnership and Dynamism	F1	.683	.045	.751	15.161	.000
Inward-Looking Dynamism	F2	.346	.042	.396	8.200	.000
Clientele Orientation	F3	-.278	.056	-.240	-4.945	.000
Product Orientation	F4	-.303	.059	-.246	-5.133	.000
Technical Improvement	F5	-.700	.062	-.546	-11.217	.000
Competitive Intelligence/ Anticipation	F6	.172	.055	.146	3.105	.002
Research and New Technology	F7	.199	.064	.145	3.106	.002

a Dependent Variable : Y

b Exclusive selection of observations for which sol 3cl Cluster R2 = 1.00

This class’s model shows the importance of dynamism in general and partnership in particular. This factor had been identified previously within the framework of correspondence analysis. Evolving mainly in industry and construction, firms in this class tend to associate performance improvement to dynamism evaluation and relational approaches. From a strategic standpoint, the actors associated with this class (omitting internal resources) try to mobilize external resources to improve performance. Relational strategies are greatly valued as a means of improving performance. Thus, relational skills, in Persais’ (2004) sense of the word, act as a fundamental tool in the implementation of this strategy. The nature of this class’s activities helps explain this strategy. Often, industry relies on a network of subcontractors and partners to obtain a finished product. In the same vein, the construction sector often relies on a number of partner-enterprises from different trades for construction projects. This explains why this class is closest to “SME + 10 employees” type clients

because it is involved in many sub-contracting and co-contracting activities.

To summarize, this model illustrates a strategy that, without neglecting the use of internal resources, relies strongly on partnership resources to improve perceived performance.

b. Class 2 of “ Dynamic + ” firms

This second class, “dynamic + ” reflects observations where the dependent variable is significantly higher than the sample mean.

Table 4 “ Dynamic + ” regression coefficients

		Non- standardized coefficients		Standardized coefficients	t	Signification
Model 1		B	Standard Error	Bêta		
(constant)		-.00144	.039		-.037	.971
Partnership and Dynamism	F1	-.634	.044	-.684	-14.402	.000
Inward-Looking Dynamism	F2	-.512	.039	-.580	-13.033	.000
Clientele Orientation	F3	.354	.045	.355	7.822	.000
Product Orientation	F4	-.379	.046	-.383	-8.181	.000
Technical Improvement	F5	-.295	.043	-.306	-6.916	.000
Competitive Intelligence/ Anticipation	F6	.159	.050	.140	3.195	.002
Research and New Technology	F7	-.138	.053	-.115	-2.615	.010

a Dependent Variable : Y

b Exclusive selection of observations for which sol 3cl Cluster R2 = 3.00

All coefficients are significant. Two are positive: Clientele Orientation (0.355) and Competitive Intelligence (0.140). This means that greater focus on clientele and competition positively influences a firm’s level of perceived performance. Five coefficients are negative: Dynamism and Partnership (-0.684), Inward-Looking Dynamism (-0.580), Product Orientation (-0.383), Technical Improvement (-0.306), Research and New Technology (0.115). This signifies that efforts relating to willingness to partnership, monitoring dynamism and

product and technical aspects are associated with a decrease in perceived performance.

The model for this class reveals the strategy of commercial firms which tend to focus on a smaller number of activities. Their main client is either the general public, or public sector and large firms. Beyond products, competitive advantage is based on identifying and understanding clientele and monitoring competition. These factors are perceived as being essential assets for improving performance. Inversely, because of the nature of activities, technical and technological capacities linked to production do not reinforce perceived performance.

To summarize, this model reflects a commercial strategy that develops expertise centered on understanding clientele and competitive environment.

c. Class 3 of “ Dynamic M ” firms

This class consists of records with a variable dependent within the sample mean. The coefficients are synthesized below.

Of the seven coefficients, two are not significant (Clientele Orientation, Inward-Looking Dynamism). Three are positive: Dynamism and Partnership (0.681), Technical Improvement (0.488), and Product Orientation (0.379). This reveals that for entrepreneurs, monitoring dynamism, openness to partnership, technical improvements and product orientation are associated with performance improvement. Inversely, research and Internet use (-0.289) and competitive intelligence (-0.215) are associated with a decrease in performance.

This model reveals a strategy focused on product and technical improvements, combined with a firm's dynamism and openness to partnership. This class is associated to the service sector. Technical proficiency and know-how on the one hand, and networking on the

other are seen as factors that contribute to performance improvement. As in the preceding case, clientele orientation is not associated with performance improvement. To summarize, this class's strategy is a combination of knowledge accumulation and a partnership-oriented approach.

Table 5: “ Dynamic M ” regression coefficients

		Non- standardized coefficients	Standard Error	Standardized coefficients	t	Signification
Model 1		B		Bêta		
(constant)		.531	.046		11.474	.000
Partnership and Dynamism	F1	.857	.055	.681	15.539	.000
Inward-Looking Dynamism	F2	-.0727	.053	-.059	-1.382	.170
Clientele Orientation	F3	.0218	.047	.019	.464	.644
Product Orientation	F4	.455	.050	.379	9.165	.000
Technical Improvement	F5	.669	.058	.488	11.607	.000
Competitive Intelligence/ Anticipation	F6	-.278	.053	-.215	-5.237	.000
Research and New Technology	F7	-.457	.065	-.289	-7.001	.000

a Variable dépendante : Y

b b Exclusive selection of observations for which sol 3cl Cluster R2 = 2.00

## DISCUSSION

Research has shown that Réunion Island firms adopt three types of performance strategies:

**Symbiotic strategy:** Class 1 “ Dynamism - ” consists of firms with a dynamism inferior to the sample mean. They interact with the industrial and construction sectors and practice a relatively high number of activities. Main clients are mostly SME firms with more than 10 employees. Their performance improvement strategy relies on internal resources dynamism and partnerships. The Class 1 strategy is

consistent with the works of Huselid (1995), and Becket and Gerhart (1996), which show that the manner in which firms manage human resources can explain performance. The insular context makes it necessary for firms in this category to find solutions to isolation and remoteness. In order both to remain essential and to improve their performance, they tend to value internal skills and to form partnerships with exterior firms.

**Determinist strategy:** Class 2 “Dynamism +” consists of firms with a dynamism superior to the sample mean. This class is associated with the commercial sector and has a limited number of activities. Main clients are the general public, on the one hand, as well as public sector and large firms on the other. They are not partnership-oriented. They tend not to disperse, neither in their activities or partnerships. Their development strategy is centered on understanding their clientele and competitive environment. They rely strongly on their environment to build competitive advantage. What is more, as these firms’ main clients are the general public, large firms and public administration, they tend to manage their relationship with their environment, thereby acquiring a kind of monopoly in their domestic market. This strategy relates to the works of Venkatraman and Prescott (1990) on aligning environment and strategy, as well as to those of Slater and Narver (1994) on market orientation and organizational performance.

**Productive strategy:** Class 3 “Dynamism M” consists of firms with a dynamism within the sample mean. This class is associated with the service sector and practices, on average, between one and three activities. Main clients are the general public, on the one hand, as well as public sector and large firms on the other. They tend to practice partnership in moderation (between 0 and 4). Their performance development strategy focuses on associating product and production processes. Class 3 relies on development of new technology to boost

organizational performance as shown by Delaney and Huselid (1996) and Dean and Snelle (1996). However, according to Meredith and McTavish (1992), developing new technologies cannot, on its own, guarantee performance. Technological development must be accompanied by significant improvements in human resources skills which are necessary for creating knowledge within a firm (Nonaka 1994).

## **IMPLICATIONS AND CONCLUSION**

The objective of this empirical study, based on a survey of 118 Réunion Island firms, is to further our understanding of performance related issues for geographically isolated firms. In this aim, seven explanatory factors were used: Dynamism and Partnership, Inward-Looking Dynamism, Clientele Orientation, Product Orientation, Technical Improvement, Competitive Intelligence/Anticipation, Research and New Technology. These factors were established to predict three performance indicators: perceived evolution of sales figures, perceived evolution of exploitation results, and perceived evolution of indebtedness. The process consisted of a typological regression procedure that used seven factors as independent variables and three performance indicators as dependent variables. This approach allowed us to identify classes that share the same regression model. For this, we used the GUIROEM genetic algorithm. An interpretive section analyses the content of these regression models as well as the way the classes are linked to exogenous factors (areas of job activity, capital structure).

These classes are not significantly linked to types of performance indicators (SF evolution, results evolution, indebtedness evolution). This reveals that, because the different conceptions attached to these indicators are not sufficiently defined by CEOs, autonomous models cannot be justified. The concept of performance includes, at different

levels, sales figures, exploitation results and indebtedness. Furthermore, a description of obtained models shows significant differences: they are varied and contain much useful information on corporate behavior.

Many results are noteworthy. From a methodological standpoint, the GUIROEM typological regression algorithm allowed for the identification of classes with particular regression models. In this manner, the heterogeneity of situations was respected. By creating emerging classes, this heterogeneity identified models that can help us interpret the phenomena that is of interest to us. This approach helped us identify different performance development strategies. Thus, for this sample, with the factors used, a unique regression model does not exist that can explain different performance aspects. Classes correspond to different situations, and each has a particular model.

From a managerial standpoint, this study provides new insight to the notion of performance. Whereas most studies are based on accounting data or other types of data, this work uses CEOs' perception on different management and performance indicators. The classification we have obtained as well as its associated models increase our comprehension of the strategies used to improve performance. This classification is associated to different performance levels and different activity sectors. Moreover, each regression model that explains performance with the help of management indicators enables us to identify a strategy specific to each class. Thus, this work allows us to highlight such explanatory dimensions of performance as the role of the activity sector and the implementation of strategy. Departing from the works mentioned in the first half of this article, we identify the source of performance as being exogenous elements, such as the activity sector and endogenous elements, such as operative strategy. On the other hand, the nature of the data and the implemented methodology makes it impossible to identify the relative importance of these dimensions. The results cannot indicate if strategy

takes precedence over the activity sector or vice versa. This is one of the limitations of this study. Although not specific to this work, another limitation concerns the nature of the resources used by firms. The results we present constitute a qualitative step forward because they reveal combinations of different management indicators that explain performance. Thus, they succeed in making explicit the mind processes of CEOs' in devising strategy. On the other hand, they cannot explain the nature of the resources that are at the root of competitive intelligence, since these tend to be tacit, informal and hardly transparent.

The nature and size of our sample urges us to exert caution. The contingent character of the data and environment allows for a better understanding of Reunionese firms' behavioral habits. Any generalizations would therefore be premature. Complementary studies that examine these firms' accounting data are presently being done. Although this data contains biases, it nonetheless allows us to realize a performance study based on non-perceptual data, thus revealing the result of implemented strategies. Moreover, as Allègre (2002) points out, by selecting the most important Reunionese firms, we have limited ourselves to studying the strategies of successful firms. This probably accounts for the homogeneity in the implemented strategy of each sector. Studying firms with heterogeneous success rates would surely help us refine the nature of implementation strategies since we could differentiate the pertinent ones from those that do not work well or do not work at all. Finally, a thorough study of the tourism industry (ECER 2) should enable us to obtain a refined identification of performance models and of resources specific to this sector's firms.

## REFERENCES

Andrews, K.R., *The concept of strategy*, Dow Jones-Irwin, 1971.

- Ansoff, I., *Corporate strategy*, McGraw-Hill, 1965.
- Barney, J.B., From resources and sustained competitive advantage, *Journal of Management*, 17(1), 1991, 29-45.
- Barney, J.B., Strategic factor markets: expectations, luck and business strategy, *Management Science*, 42(5), 1986, 1231-1241.
- Boyer, M., Cucchi, A., Dubrulle, C., De La Grange, T., Jaeger, C., Picard, P., Tang-Taye, J.-P., Thebault, M., Tilmont, D., Trommsdorf, R., Valeau, P., Etat des lieux du tissu économique réunionnais en 2002, *Rapport d'étape de l'étude de la compétitivité des entreprises réunionnaises (Projet ECER)*, Laboratoire GREGEOI-FACIREM, Université de la Réunion, November 2002, 97.
- Boyer, M., Jaeger, C., Mérignac, O., Valéau, P., Les performances des entreprises réunionnaises en gestion des ressources humaines, *Actes du colloque de l'AGRH, Montréal, 2004*.
- Carrier, C., Raymond, L., Eltaief, A., Le cyberentrepreneuriat: une étude exploratoire, *Revue Internationale P.M.E.*, 15(3-4), 2002, 139-162.
- Chandler, A.D., *Strategy and structure*, MIT, Press, Cambridge, 1962.
- Collis, D.J. and Montgomery, C.A., *Corporate strategy: a resource-based approach*, N.Y.: Irwin/McGraw Hill, 1998.
- Cucchi, A. and Ouedraogo, A., Quels modèles de performance pour les entrepreneurs de PME en territoire isolé ? Le cas des entreprises de l'île de la réunion, *11ème Colloque ACSEG, Lille*, November 18 & 19, 2004.
- Cucchi, A. and Thébault, M., Empirical comparison to predictive clustering between a bio mimetic methodology and a non connectionist approach, *Fuzzy Economic Review*, 5(2), 2000, 27-48.
- Dierickx, I. and Cool, K., Asset stock accumulation and sustainability of competitive advantage, *Management Science*, 35(12), 1989, 1237-1249.

- Drucker, P., *The Practice of Management*, New York: Harper & Row, 1954.
- Dunning, J.H., Reappraising the eclectic paradigm in an age of alliance capitalism, *Journal of International Business Studies*, 26(3), 1995, 325-343.
- Goldberg, David E., *Genetic algorithms in search, optimization, and machine learning*, Reading, MA: Addison-Wesley, 1989.
- Grant, R.M., The resource-based theory of competitive advantage: implications for strategy formulation, *California Management Review*, 4(7), 1991, 421-443.
- Hadida, Allègre L., Perspective de la ressource et avantage concurrentiel : un état de l'art des recherches empiriques (1985-2001), *Actes du Congrès de l'AIMS*, 2002.
- Hamel, G.Y. and Prahalad, C.K., *Competing for the future*, Harvard Business School Press, 1994.
- Hansen, G.S. and Wernerfelt, B., Determinants of firm performance: the relative importance of economic and organizational factors, *Strategic Management Journal*, 10, 1989, 399-411.
- Hansen, G.S. and Wernerfelt, B., Determinants of firm performance: the relative importance of economic and organizational factors, *Strategic Management Journal*, 10(5), 1989, 561-585.
- Holland, J.H., *Adaptation in natural and artificial systems*, University of Michigan Press, Ann Arbor, 1975.
- INSEE, Tableau économique régional de la réunion (TER) 2002-2003, *Institut National de Statistique et des études économiques (France)*, 2002-2003, 210.
- Julien, P.A. and Marchesnay, M., *L'entrepreneuriat*, Paris, Economica, 1996.
- Kamakura W.A. and Wedel, M., *Market segmentation: conceptual and methodological foundations*, Dordrecht, Kluwer, 1997.

- Mauri A.J. and Michaels, M.P., Firm and industry effect within strategic management: an empirical examination, *Strategic Management Journal*, 19, 1998, 211-219.
- McGahan, A.M. and Porter, M.E., How much does industry matter really?, *Strategic Management Journal*, 18, 1997, 15-30.
- Miller, D., *The Icarus Paradox*, N.Y., Harper Collins, 1990.
- Ngobo P.V., Stephany E., Les différences de performance financière entre les entreprises: résultats du marché français, *Finance Contrôle Stratégie*, 4(1), March 2001, 89-121.
- Persais E., Les compétences relationnelles peuvent-elles s'avérer stratégiques?, *Revue Française de Gestion*, 30(148), January/February 2004, 119-145.
- Peters, T., Waterman, R.H., *In search of excellence*, New York, Harper & Row, 1982.
- Porter, M.E., *Competitive strategy*, Free Press, 1980.
- Porter, M.E., Millar V.E., How Information gives you competitive advantage, *Harvard Business Review*, 63(4), 1985, 251-274.
- Raymond L., L'impact des systèmes d'information sur la performance de l'entreprise, in *Faire de la recherche en systèmes d'information*, ouvrage coordonné par Rowe F, Ed. Vuibert, Collection FNEGE, 2002, 301-320.
- Roquebert J.A., Phillip R.L., Westfall P.A., Markets versus management: what drives profitability?, *Strategic Management Journal*, 17(8), 1996, 653-664.
- Rumelt R.P., How much does industry matter?, *Strategic Management Journal*, 12, 1991, 167-185.
- Rumelt, R.P., Schendel, D., Teece, D., Strategic management and economics, *Strategic Management Journal*, 12, 1991, 5-29.
- Schmalensee R., Do markets differ much?, *American Economic Review*, 75(3), 1985, 341-351.
- Tarondeau, J.C., Les facteurs d'internationalisation des activités industrielles, *Revue Française de Gestion*, 19, 1993, 55-71.

- Wedel M. and Steenkamp, J-B. E.M., A fuzzy clusterwise regression approach to benefit segmentation, *International Journal of Research in Marketing*, 6, 1989, 241-258.
- Wedel M. and DeSarbo, W.S., A mixture likelihood approach for generalized linear models, *Journal of Classification*, 12, 1995, 21-55.
- Wernerfelt B., A resource-based view of the firm, *Strategic Management Journal*, 5, 1984, 171-180.
- Wernerfelt B., Montgomery C., Tobin's q and the importance of focus in firm performance, *American Economic Review*, 78, 1988, 246-25.

## A Game Theoretical Meditation on the Strategy of Industrial Competition

Lijun Chai  
School of Economics and Management  
Qingdao University of Science & Technology  
Qingdao city, Shandong Province, P.R.China  
E-mail: chailijun1008@126.com

Zhihan Yan  
School of Economics and Management  
Qingdao University of Science & Technology  
Qingdao city, Shandong Province, P.R.China  
E-mail: xdere@126.com

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### ABSTRACT

*First, we analyze the present situation of market structure, enterprise behavior and organization performance in Chinese industry. Second, we integrate the model of competition and the strategy of technological innovation; third, we propose a game theoretic approach in studying strategy of industrial organization; finally the theoretical meaning and realism meaning of this study are given.*

**Keywords:** *market structure; enterprise behavior; organization performance; strategy of industrial competition; strategy of technological innovation.*

## **INTRODUCTION**

Since the 1980s, with China's deepening reform and the accelerated process of market-oriented, China's industrial organization policy and market environment has changed; the industry organization's own situation also has been a series of changes. Firstly, market competition is diverse and is need for effective study. Secondly, with the national economy promotion, technological progress and international competition intension, people keep on understanding of monopoly and competition deeply, some natural monopoly industries will be redefined, and some industries need to break the monopoly.

As a result, how to implement regulations on industry, how to achieve the requirements of national economic system on industry, etc, and theory of industrial organization needs to provide answers urgently. As the main market-enterprise, in the increasingly fierce market competition, a series issues of how to act, how to choose competitive strategy, how to manage also require us in-depth research to industrial organization issues between industries and enterprises.

## **THE STATUS OF CHINA'S INDUSTRIAL ORGANIZATION**

### **Market Structure**

Most industries in China, especially manufacturing, show a market structure where there is a large number of enterprises and serious surplus production capacity or called atomic structure. In recent years, China's large enterprises have developed by leaps and bounds, most industries are gradually tends to intensify. Compared with large international enterprises, however, China's industry concentration is still at a relatively low level. Industry structure is too disparate, self-organization is poor and economies of scale are at a low level. The level of professional collaboration is not satisfying and there is a universal existence of versatile enterprises.

Enterprise's exit barriers and entry barriers is asymmetry. State administrative monopoly industries, such as electricity, telecommunications, tobacco, finance and insurance should be subject to strict restrictions on access. On the other hand, many industries like manufacturing have lower barriers to entry, leading to excessive competition, serious surplus production capacity and economic benefits landslide. Administrative barrier in regions and departments is too high; mergers mechanism is blocked, the scale of the enterprises are hard to expand rapidly. Government and enterprise can't be divided clearly, government monopoly exists, and there is not market competition mechanism of survival of the fittest.

### **Enterprise Market Behavior**

From the perspective of China's enterprise market behavior, enterprises in administrative monopoly industries inclined to take exclusive, predatory or hypertension measures to sell their goods and service of poor quality, due to lack of potential competitive threats and pressure. In order to maintain its existing excess profits, they often lobby authorities through a variety of "rent-seeking" activities, to achieve the purpose of maintaining or raising prices and limiting output and serve. That leads to improper means of competition and competition disorder.

China's enterprises have low advertising spending, low R & D investment and poor non-price competition. Technology introduction, digestion and absorption are uncoordinated, and innovation ability is poor, which seriously hampered technological innovation, enterprise development and the upgrading of industrial structure.

### **Industrial Organization Performance**

As market competition intensifies, the average profit level of China's industrial enterprises has declining trend in recent years. The distribution of industry profit margins between industries is

unreasonable, showing that the allocation of resources between industries is unreasonable, allocation of social resources is inefficient, and industrial economies of scale achieve a lower level. The entry of many enterprises declines the proportion of enterprises that achieve the economies of scale, leading to excessive competition in many industries in recent years. That directly compresses the original large enterprise's market share and production. Some urgently needed goods have high prices and insufficient supply because of monopoly, which seriously harmed the interests of consumers.

Other goods have continuing surplus as a result of repeated investment, a large number of production factors and resources can not be sell, which are not conducive to the improvement of efficiency of resource allocation. Lack of motivation in enterprise technological progress and a relatively low level of technology perform as short of technology development organizations, short of technology advances, low level of absorption and utilization to external scientific and technological achievements, and small decline in product cost and product prices.

## **MODEL COMPETITION AND TECHNOLOGICAL INNOVATION STRATEGY**

Michael E. Porter, an American famous strategic management of Jurists and Harvard Business School professor, lead in the analysis of industrial competitiveness. Before Porter, many scholars have conducted in-depth study of competitive strategy. Andrews, a Harvard Business School professor, proposed the most influent SWOT analysis framework," The theory of competitive strategy framework is to a large extent proposed by Andrews".

Porter's new enterprise competition strategic theory is the outcome of many years' research. He think the state of competition within the industry depends on the interact of five basic factor(the relation with

suppliers, the relation with buyers, new entrants, substitute products, and existing competitors). The five competitive forces to determine the strength of an industry's competitiveness and ultimate profit potential. One or more of the forces occupy a dominant position and play a key role on the formation of a corporate strategy. Technological innovation can play a considerable role in gaining a competitive advantage. From the perspective of relationship between the suppliers and buyers, technological innovation can bring new opportunities and enhance competitiveness, such as reducing dependence on material suppliers in order to increase the competitiveness on the supply side. From the perspective of potential rivals and alternative products, legal protection measures such as establishment of standards and patent can reduce the threat. From the perspective of existing competitors, competitors break the monopoly by innovation or imitation. In one word, technological innovation affects many aspects.

According to the analysis of Porter, industrial competitiveness strategies can be divided into the total cost of the leading strategies, differentiation strategy and objectives gathering strategy. The implementation of these three strategies needs different resources and skills, but there are different degrees of risk. Porter also detailed exposition on other important component-theoretical models of competitors, including three aspects on how to identify competitors, how to analyze competitors, and how to find market action signals of competitors. Porter's theory and analysis are highly realistic significance to many enterprises facing fierce market competition and trying to maintain the relative competitive advantage.

When doing innovative strategies in decision-making, competitor's situation must be considered, specifically make comparative analysis in the following four aspects: compare the size of the business and the composition of resources; compare the efficiency of the use of resources; consider the enterprise's own efficiency of learning knowledge and experience; maintain the enterprise's competitive edge. Besides,

enterprise management sector must evaluate the market position on innovative strategies in two aspects, one is from the competitor's strategic intentions and capabilities, the other is from the characteristics of innovation. Its purpose is to decide to be the leader or follower of innovation.

### **GAME THEORY RESEARCH ON INDUSTRIAL TECHNOLOGY INNOVATION COMPETITION STRATEGY**

From the above analysis we can see that China's industrial organization and structure need to improve. With the transformation from the traditional planned economic system to modern market economic system, enterprise begins to change from government executive appendage to independent main competition in the market. Competition is the key to business success, and decides the industrial organization whether or not reasonable. Corresponding, there are increasing demand on research on competitive strategy by the business, the theoretical circle and the government's economic management departments. However, it is not until 1990s that China's enterprise first contacts with the advanced competitive strategic theory. Mainstream theory of industrial organization is opposed to any behavior directing to monopolize. However, the situation in China is that industry concentration is too low, far below the requirements of economies of scale, seriously undermining China's enterprises in the international market competitiveness.

Therefore, China's industrial organization policy can not choose anti-monopoly as the keynote. The policy position of Chicago School and the new Austrian school is safeguarding competition and opposing government intervention. China can not simply adopt this idea too, because China has a large number of state-owned enterprises. Its property features decide that government would not treat state-owned enterprises as private enterprises, or it will cause serious loss of state

assets. No state intervention is inconceivable for a country with fundamental structural reform and change in various institutional arrangements. Therefore, China's industrial organization policy is to strike a balance between maintenance monopoly and promoting competition.

Game theory studies decisions and balance when the policy-making main bodies' act is interacting directly, or decisions and balance when a main bodies' act is affected by other bodies. Traditional microeconomics sums up all other person's behavior in a parameter when studies individual policy-making effectiveness maximization. It doesn't consider the mutual influence between their choice and others'. Individual utility function researched by Game theory not only relies on his choice, moreover relies on other people's choice. Individual most superior choice is the function of other people's choice. A technological innovation strategy's choice must involve many kinds of factors, such as how to innovate the strategy, innovation time, risk policy-making factors and so on. When making the decision, it must consider other people's response to their policy-making. How can make the decision to balance everybody's benefit, this is precisely the issue which the game theory studies.

Our country just starts in the industrial organization theory research, and lack of basic data and material about industries' development condition. Therefore, we should mainly do case study as western scholars did in 1950 to 1970s, especially research the competition environment and enterprise's competition strategy. In view of the unique situation of individual case, it establishes the game theory model to realistic condition, applies the game theory in the concrete cases analyzes. As a kind of analysis tool, the game theory has influential role and significance to the competition strategic analysis. It can be trusted that the competition strategic research based on the game theory will become an important issue of the industrial organization economics.

## **RESEARCH SIGNIFICANCE**

### **Theory Significances**

Theoretical study is to the requirements of practice. Our country's current economic development requests us to strengthen the research on Industrial organization theory. Looking from our country's situation, under planned economy system, there are not monopoly and compete relations between enterprises in identical industry, so it doesn't need to do industrial organization fundamental research. After more than 20 year reform and open policy, however, our country's market mechanism of monopoly competition has formed basically. In current economical reforming time, the enterprise competition needs the Industrial organization theory and strategic theory in order to win the competitive advantage.

Compared with the West, the Chinese economical educational world falls far behind on value degree of industrial organization theory and Research level. Since many years, our country's research key point is to grasps the economic activity's macroscopic law but neglect the microscopic and intermediate perspective. After Industrial organization theory introduction, we starts to emphasize on organically unifying microscopic, intermediate perspective and macroscopic in the society reproduces. The initial period discusses the industrial structure emphatically on industrial proportion coordination and single factory expansion. In recent years, although some scholars have discuss Chinese major industries structure (the concentration degree, entry barriers), behavior and achievements(S-C-P), there still exists insufficient. Especially in the issue of industrial competition strategy, it lacks system standard and real diagnosis research, not to mention researching influence on enterprise business strategy by game theory in Industrial organization theory.

### **Practice Significances**

The industrial organization theory is important component of modern economics, an newly emerging applied economic theory analyzing and researching economy operational problems under market economy condition. The industrial organization theory takes the price theory as a foundation. In modern market economy developing process, it analyze efficiency influence causing by industrial organization condition and changes, and provides theory basis and the countermeasure way to maintains the reasonable market order and economic efficiency. Looking from China's reality, research on China industrial organization has the very vital significance. It mainly manifests in following several aspects:

#### 1 promotion resources reasonable disposition

Realistic market is often monopoly competitive market where competition and monopoly mix in different shape. The government may judge whether there is the Cartel behavior, price distortion, market failure, excessive competition and fair competition based on the Industrial organization theory. Then it can formulate corresponding industrial organization policy (counter-Trust policy, entry barrier policy) to limit enterprise's excessive monopoly, finally make up the market flaw and realize the resources reasonable disposition.

2 be advantageous to the choice of enterprise competition strategy  
Choosing which industry to invest need not only make forward-looking analysis and the forecast to the industrial prospect, but also emphatically analysis this industry's present situation. For example, the forecast to entry barrier would provide the theory cornerstone for original enterprises formulating defensive strategy to new enterprises. In addition, analysis to the industrial organization theory is helpful for enterprises making concrete price and non-price competition strategy.

3. Strengthen the China industrial organization international competitiveness

Strengthening our country's industrial organization theory research, reforming the pattern how government adjusts industrial organization, is helpful for promoting the transformation of the government functions, eliminating the administrative monopoly, deepening economic restructuring, formulating scientific industrial organization policy, establishing standard market competition order, displaying the organization function of market competition mechanism. It is also helpful for enlarging the advertisement and R&D investment and enhancing the non-price competitive power to China's enterprise. In a word, this topic is advantageous in enhancing and strengthening China's industrial organization international competitiveness.

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#### **REFERENCE**

- Al-Laham, A. and Amburgey, T.L., Who makes you central?  
*Management International Review*, 50(3), 2010, 297-323.
- Hannan M.T. and Freeman, J., The population ecology of organizations,  
*The American Journal of Sociology*, 82(5), 1977, 929-964.
- Harrigan, K.R. An application of clustering for strategic group analysis,  
*Strategic Management Journal*, 6(1), 1985, 55-73.

- Grewal, R., Chakravarty, A., and Saini, A., Governance mechanisms in business-to-business electronic markets, *Journal of Marketing*, 74(4), 2010, 45-62
- Kitschelt, H., Industrial governance structures, innovation strategies, and the case of Japan: sectoral or cross-national comparative analysis? *International Organization*, 45, 1991, 453-493.
- Lenz, R.T., Strategic capability: a concept and framework for analysis, *The Academy of Management Review*, 5(2), 1980, 225-234.
- Lin, Danming, Review of industrial organization method in study of strategic management, *Academic Research*, 4, 2001, 36-39.
- Podolny, J.M., A status-based model of market competition, *American Journal of Sociology*, 98(4), 1993, 829-872.
- Porter, M.E., *Competitive advantage*, Beijing, Huaxia press, 1996.
- Porter, M.E., *Competitive strategy*, Beijing, Huaxia press, 1997.
- Porter, M.E., Consumer behavior, retailer power and market performance in consumer goods industries, *The Review of Economics and Statistics*, 56(4), 1974, 419-436
- Porter, M.E., The contributions of industrial organization to strategic management, *The Academy of Management Review*, 6(4), 1981, 609-620.
- Xu, Qingrui, *Research, development and management of technological innovation*, Beijing, Higher Education Press, 2001.
- Zhang, Weiying, *Game theory and information economics*, Shanghai, SDX Joint Publishing Company, Shanghai People's Publishing House, 1996.

## Antecedents and Consequences of Employees Empowerment

Said Shaban Hamed  
Faculty of Commerce  
Al-Azhar University  
Egypt  
E-mail: said\_shaban@hotmail.com

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### ABSTRACT

*This research examines the relationship between role clarity, organizational trust and employees empowerment, the relationship between employees empowerment and job involvement, job satisfaction. The research used a cross-sectional design. A random sample of 862 employees was selected to participate in this research. Self-administered questionnaires were used in data collection. The results show statistically significant positive relationships between role clarity, organizational trust and employees empowerment, and also a statistically significant positive relationships between employees empowerment and job involvement, job satisfaction. The article discusses implications of these findings.*

**Keywords:** *role clarity, organizational trust, employees empowerment, involvement, job satisfaction*

## INTRODUCTION

In the era of globalization there is need for employees empowerment in organization so that employees will be in position to make quick decision and respond quickly to any changes in environment . organization that are committed to employees empowerment they are in position to motivate and retain their employees , employees empowerment is concerned with trust , motivation ,decision making and breaking the inner boundaries between management and employees .(Ongori,2009). In recent years there has been considerable academic and practitioner interest in the topic of employees empowerment, which has become a buzzword, and recent management trends in both the public and private sector (Pitts, 2005).

Employees Empowerment has received a wide recognition as an important subject in management circles, mainly, because it is seen as one of the fundamental elements of managerial and organizational effectiveness that increases when power and control are shared in organization (Ergeneli, et al., 2007). Empowerment programs have been introduced in a number of organizations in order to improve productivity, increase customer satisfaction and enhance competitive advantage (Hardy and Leiba-O'Sullivan,1998). Thus, employees empowerment has been hailed management technique which can be applied universally across all organizations as means of dealing with the needs of modern global business (Demitriads, 2005).

Generally, employees empowerment comprises of an innovative approach in working with people and a shift of power from the top management control to lower level management of the organization. (Tzafrir, et al., 2004). Researchers and leaders have advocated for empowerment of employees to help organizations compete successfully in highly competitive marketplace (Tjosvold and Sun, 2005). Employees Empowerment is seen as a motivational technique if designed and implemented properly in organizations. Thus, employees

empowerment will lead to improvement of performance of the organization through increased levels of employee's participation and self-determination (Greasley, et., al., 2005). Basically, employee empowerment is mainly concerned with trust, motivation, decision making and breaking the inner boundaries between management and employees as then verses us (Ongori and Shunda, 2008)

Empowerment practices are often implemented with the hopes of overcoming worker dissatisfaction and reducing the costs of absenteeism, turnover, and poor quality work (Klein, et. al., 1998). Empowerment enables employees to participate in decision making, helping them to break out of stagnant mindsets to take a risk and try something new. Empowering practices allow employees to decide on their own how they will recover from a service problem and surprise-and-delight customers by exceeding their expectations rather than waiting for approval from a supervisor. And perhaps, most importantly, empowerment is viewed as critical in the process of organizational change. Rather than forcing or pushing people to change, empowerment provides a way of attracting them to want to change because they have ownership in the change process. (Bowen and Lawler, 1995)

## **RESEARCH OBJECTIVES**

This research attempt to answer the following questions:

1. What is the nature of the relationship between role clarity , organizational trust and employees empowerment at post offices in Riyadh region Saudi Arabia?.
2. What is the nature of the relationship between employees empowerment and Job involvement and job satisfaction at post offices in Riyadh region Saudi Arabia?.
3. To what extent are role clarity and organizational trust interpreted employees empowerment?.

4. To what extent is employees empowerment interpreted Job involvement and job satisfaction?.

5. How can we increase the effectiveness of role clarity, organizational trust, employees empowerment, job involvement and job satisfaction at post offices in Riyadh region Saudi Arabia?

The above research questions have been split into the following objectives:

1. To understand and discuss the nature of the relationship between role clarity, organizational trust and employees empowerment at post offices in Riyadh region Saudi Arabia.

2. To analyze and discuss the nature of the relationship between employees empowerment and Job involvement and job satisfaction at post offices in Riyadh region Saudi Arabia.

3. To develop a set of recommendations for increasing the effectiveness of role clarity, organizational trust, employees empowerment, job involvement and job satisfaction at post offices in Riyadh region Saudi Arabia.

4. To raise major implications for human resource development research and practice based on the findings of this study.

## **THEORETICAL FRAMEWORK AND HYPOTHESES**

### **Employees Empowerment**

Spreitzer(1995) defines employees empowerment as intrinsic task motivation manifested in a set of four cognitions (meaning, competence, self determination and impact) reflecting an individual's orientation to his or her work role. In summary, they are defined as follows:

- Meaning is the value of work goals or purposes judged by an individual's perception relative to his or her own personal mission or expectations .

- Self-determination is an individual's sense of having choice in initiating and regulating actions.
- Competence refers to self-efficacy specific to work; that is, the individual's capability to perform work activities with necessary skills and knowledge.
- Impact is the degree to which a person can influence strategic, administrative or operating outcomes at work.

Smith and Mouly (1998) define employees empowerment as a transfer of power from the employer to the employees to make quick and quality decision .

Brymer (1991) defines employees empowerment as a process of decentralizing decision making in an organization, whereby managers give more discretion and autonomy to the front line employees.

Bowen and Lawler (1992) also defined employees empowerment as sharing with front-line employees' information about an organization's performance, information about rewards based on the organization performance, knowledge that enables employees to understand and contribute to the organizational performance, and giving employees the power to make decisions that influence organizational direction and performance.

Conger and Kanungo (1988) view employees empowerment as a process of enhancing the feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness, and through their removal by both formal organizational practices and informal techniques of providing efficacy information.

The concept of empowerment refers to the ability to do things; it means to be able to do. (Gibson 1991). Employees who feel strong empowerment have qualities, which make possible a strong sense of self-esteem, successful professional performance and progress in their work (Suominen, et al., 2005). Employees Empowerment can be

defined as a process whereby the individual feels confident he can act and successfully execute a certain kind of action (Irvine, et al., 1999). Finally, Griffith, et al., (2008) define employees empowerment as organizational efforts that increase individuals' perceptions of power, control, and ability to influence the larger system of which they are a part.

Through the pervious definitions I can say that employees empowerment have the following characteristics:

1. Employees empowerment increases the effective influence of individuals and team work by giving them more freedom to perform their duties.
2. Employees empowerment focuses on the real ability of individuals in solving work problems and crises.
3. Employees empowerment makes the individuals responsible for the outcomes of their actions and decisions.

### **Elements of Employees Empowerment**

Fracard (2006) see that employees empowerment contains three elements. Each needs to be present for employees empowerment to be successful.

1. **Style:** Empowered employees have a working style of self-management and possess a team spirit. Employees make, implement, and are held accountable for work-related decisions.
2. **Skills:** Empowered employees are trained to have effective problem-solving and communication skills. They challenge inefficient policies and identify problems.
3. **Staff:** Empowered employees are bred in empowering organizations. With empowering leaders as drivers, immersed in a culture of empowerment and reinforced by empowering management practices, employees are expected to grow.

### **Employees Empowerment Types**

Suominen, et al. (2005) classify Employees Empowerment into three types:

1. **Verbal Empowerment:** Verbal Empowerment refers to the ability to state one's opinion and debate one's views in different kinds of groups. Participation in decision-making is also an integral part of verbal empowerment. It has been reported that increased decision-making authority strengthens employee organizational commitment, autonomy (meaning the freedom to apply their skills and knowledge) and job satisfaction.

2. **Behavioral Empowerment:** Behavioral Empowerment refers to the ability to work in groups in order to solve problems; to identify problems that need to be solved; to collect data about work problems and recommend solutions; and to learn new skills and handle a more challenging job. Other aspects of behavioral empowerment include reporting and group work.

3. **Outcome Empowerment :** Outcome Empowerment includes the ability to determine the causes of problems and to solve them, as well as the ability to make improvements and changes to the way the work is done with a view to increasing the effectiveness of the organization.

### **Employee Empowerment Benefits**

Employees Empowerment provides significant benefits to the organizations such as:

1. Empowerment makes employees feel that they are vital to the success of the organization. In addition it serves as a vote of confidence in the employee's ability to significantly contribute to the organization objectives. Empowerment places people at the centre of the circle rather than on the fringes. Then in the long run employees would be committed towards achieving the organization objectives. Any change which takes place in organization is effected by employees. Employee Empowerment facilitates the process of change in the organization.

2. Employees Empowerment builds commitment and develops a sense of belonging to the organization. Acceptance and Ownership are basic human needs that are satisfied through the empowerment process in organization (Greasley, et. al., 2005).

3. Empowered people join in creating their own destiny, and their work becomes exciting, stimulating, enjoyable and meaningful (Moye, et al, 2005) .

4. Reduce the number of administrative levels in organizational structures, which lead to more effective communication and reduce time decision.

5. Increased focus and attention of senior management strategic issues and leave the day-to-day matters to subordinates.

6. Provides a suitable environment for the implementation of modern management strategies such as Total Quality Management and others (Ongori and Shunda, 2008).

7. Increase employee loyalty, while at the same time reducing turnover, absenteeism, and illness (Ripley and Ripley, 1992; Spatz, 2000).

### **Employees Empowerment Strategies**

Some employees' empowerment strategies have been identified in some management literature which will enhance and promote empowerment in an organization. Block (1987) suggests that one good strategy that enhanced the feelings of empowerment in employees is to express confidence in them as well as establishing a realistic high performance for them. He also suggests another empowerment strategy by creating opportunity for employees to participate in decision making.

Benis and Nanus (1985) also suggest an empowerment strategy by setting inspiring and challenging task to the employees. Ugboro and Obeng (2000) suggest a performance-based reward system and enriched jobs that provide autonomy and control, task identity,

opportunities for career advancement, and task meaningfulness as ways to empower employees. Hills (1991) proposes that TQM may empower employees by delegating responsibility for functions that were formerly within management's domain, which may thus serve to institutionalize empowerment on a more or less prominent base. Managers have the sole responsibility to identify and remove the conditions that foster a sense of powerlessness and which lowers self-efficacy belief of employees.

### **Employees Empowerment Pillars**

In order for Employees Empowerment process to be successful in any organization, the following pillars should be put in place by management:

1. Resources : includes financial , information , tools and equipments.
2. Coaching : managers must act as mentors in their organizations .
3. Alignment : Alignment of organization goals with the strategy (integration)–goals formulated by management should be specific, measurable, achievable and realistic and should have the time limit to be achieved. This will motivate employees to work towards achieving these goals.
4. Information : Employees should get the necessary information in good time to make thoughtful decisions. Information should be readily available and quickly transmitted to all concerned employees.
5. Climate : high degree of trust among the employees should be highly encouraged and maintained.
6. Training of employees should be encouraged by management in organization in order to develop the knowledge and skills of their employees (Ongori and Shunda, 2008).

### **Employees Empowerment Steps**

The process of Employees Empowerment have several steps:

1. Acquire empowerment. Upper management starts the empowerment process. They must be willing to relinquish authority and decision-making power to lower levels of the organization.
2. Choose employees to empower. Employees must want to be empowered. Some employees are unwilling to accept additional responsibilities and decision-making power regardless of potential rewards. They need skills to make correct decisions and accomplish additional responsibilities.
3. Provide role information. Upper management defines employee's role and assigns responsibilities, authority, and decision-making power to meet organization and department goals. It also defines boundaries to clarify decisions employees will and will not make. Also, specify performance criteria and rewards for outstanding achievement.
4. Share organization information. Blanchard, et al, (1999) see that organization must help employees to understand the need for change, share good and bad information, and view mistakes positively. Explain organization vision and values, clarify priorities, and learn decision-making and problem-solving skills.
5. Provide training to employees. Fracard (2006), see that organization must train new employees. Current employees with experience and knowledge also need training. Training should be continuous because it is a major key to the success of a business.
6. Inspire individual initiatives. An inspired employee is a highly productive resource to organization and department. Bartlett and Ghoshal (1997), see that organization must build on the belief of the individual a sense of ownership (create small performance units, decentralize resources and responsibilities), develop self-discipline, establish clear standards and expectations, and provide a supportive

environment (coaching, openness to challenges, and tolerance for failure (Fracard, 2006).

### **Role Clarity and Employees Empowerment**

Role clarity refers to an individual's perceptions about the expectations and behaviors associated with his/her role (Kahn, et al, 1964).

Role clarity includes the clarity of expectations about the goals and objectives of a work role (termed goal clarity) and clarity of the behaviors necessary to fulfill a work role (termed process clarity). (King and King 1990)

Role clarity is proposed as an antecedent of employees empowerment because unless individuals have a clear sense of their responsibilities, and how to achieve them, they are unlikely to believe that they have the necessary skills and abilities to perform tasks adequately (i.e., feel empowered). Spreitzer (1996) argues that creating clear goals, tasks and lines of responsibility improves empowerment in the workplace. Role clarity increases intrinsic motivation to perform as it increases the expectation that effort will lead to performance and that performance will lead to outcomes (Jackson and Schuler 1985; Tubre and Collins, 2000). Spreitzer (1996) argues that it is only when individuals understand their roles that those roles can take on personal meaning. Individuals with an understanding of their work goals and how to achieve them can judge the value of their work and therefore experience higher perceptions of meaning. Clear lines of responsibility and authority are related to perceptions of confidence (Conger and Kanungo 1988).

Similarly, clear task requirements and low uncertainty are also related to feelings of competence. Individuals with clear work goals and an understanding of how to achieve those goals are likely to feel that they can perform their job with skill and thus feel more competent. Individuals who are uncertain of their role expectations are likely to

hesitate or not take the initiative due to feelings of uncertainty (Spreitzer, et al., 1997). In contrast, individuals are likely to feel that they have control over their work environment under high levels of role clarity. This creates feelings of being able to determine and take actions to complete tasks, and thus increase self-determination.

A lack of role clarity is likely to make individuals feel helpless and thus reduce their perceptions regarding the impact they have in their work area (Spreitzer, et al., 1997). In contrast, individuals who understand their work roles are more likely to take actions and decisions that influence results in their work area (Sawyer, 1992). Prior research shows that higher levels of role ambiguity are related to lower levels of psychological empowerment (Spreitzer, 1996; Smith and Langfield, 2003). Hall (2008) finds that role clarity has a positive impact on the employees empowerment. This leads to Hypothesis 1

H1: There is a positive association between role clarity and employees empowerment.

### **Organizational Trust and Employees Empowerment**

Organizational trust involves employees' willingness to be vulnerable to their organization's actions. This willingness can be rendered only when an organization clearly communicates its actions to its employees through informal and formal networks. (Tan and Lim, 2009). Tan and Tan (2000) define organizational trust as the global evaluation of an organization's Trustworthiness as perceived by the employee. It is the employee's confidence that the organization will perform an action that is beneficial or at least not detrimental to him or her. Rousseau, et al. (1998) defines organizational trust as a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another. Barney and Hansen (1994) define organizational trust as the mutual confidence that one's vulnerabilities will not be exploited in an

exchange. Hosmer (1995) also defines organizational trust as the expectation by one person, group or firm of ethical behavior- that is, morally correct decisions and actions based upon ethical principles of analysis - on the part of the other person, group, or firm in a joint endeavor or economic exchange.

Several researchers have advocated the importance of organizational trust. (Hart, et al., 1986) find that autonomy is an emergent factor associated with trust. Employees' trust in the organization, more specifically, management motives is likely a critical attitudinal antecedent to one's sense of self-determination. The more employees trust management, the more likely they will accept their authority as truly autonomous, as opposed to management-controlled influence. Robbins, et al., (2002) suggests a link between trust in management and willingness to take risks in one's work. The more an employee trusts the motives and changes implied by the authority granted, the more likely he or she will perceive a sense of choice or self-determination in the initiation and continuance of work behaviors and processes.

Studies discussing the reasons for failure and the conditions conducive to success in empowerment practices emphasize the importance of trust (Andrews, 1994 ). Other studies accept trust as a critical prerequisite before managers empower employees (Mishra and Spreitzer,1998; Robbins,et al , 2002). However, a look at the literature reveals a lack of field research in this area. A study to determine the factors hindering or resulting in the spread of empowerment in a company where personnel empowerment efforts had failed noted that both employees and managers underlined the importance of trust (D'Annunzio and McAndrew, 1999 ).

Examining many firms (Andrews,1994 ), claims that the lack of trust within an organization is a key element of failure, forming a hidden and invisible barrier preventing personnel empowerment efforts from resulting in success. Empowerment is the fruit of trust.

Trust has been identified as a critical ingredient to enhance organizational effectiveness and competitive advantage in the competition for human talents, job satisfaction and long term stability and well being of organizational members (Huff and Kelley, 2003). Organizations that see the value of their employee create a culture of mutual trust among organizational members and between management and employees. These organizations are known as high performance Organizations. Trust inside organizations directly affects profits , innovation, and organizational effectiveness; however evidence seem to indicate that trust in both public and private organizations has been declining for several decades ( Kramer,1999) . Trust is a foundation for social order within and beyond organizations, especially in increasingly complex, global, fast – paces business environment, and has a number of important benefits for organizations and their members. For example, Trust plays a paramount role in the creation and development of psychological contract that binds an employee to the organization, and it can play a key role in explaining employees 'attitudes and behaviors at work .Trust is particularly important for organizations competing in the global marketplace in which there are uncertainty and risk because partners' culture, values and goals may be very different (Huff and Kelly, 2003). Moye, et al., (2005) discover that empowered teachers in their work environment have higher levels of interpersonal trust in their principals. Ergeneli, et al, (2007) states that in relationships between employees and managers, mutual trust creates a distinctive atmosphere for personnel empowerment. This leads to Hypothesis 2

H 2: There is a positive association between Organizational trust and employees empowerment.

### **Employees Empowerment and Job Satisfaction**

Balzer, et al., (1997) define Job satisfaction as the feelings a person has about her or his job. Job satisfaction is an assessment of overall job experience, and arises from many factors such as one's relationship with a supervisor, the sense of fulfillment of work, perceived congruence between pay and work production, and physical conditions of the working environment (Spector, 1997). Job satisfaction was one of the earliest anticipated outcomes of empowerment (Spreitzer, et al, 1997).

Meaning and self-determination are expected to improve job satisfaction. A sense of meaning is considered necessary for individuals to feel satisfied at work. Having a job that allows fulfillment of ones' desired work values are likely to increase job satisfaction (Locke 1976). Low levels of meaning have been linked to feelings of apathy and lower work satisfaction (Thomas and Velthouse 1990). Liden,et al , (2000) argue that individuals who feel that their jobs are significant and worthwhile have higher levels of satisfaction compared to those who feel their jobs have little value. Empirical research finds a positive association between meaning and work satisfaction (Spreitzer ,et al, 1997; Liden, et al, 2000). Self-determination positively influences job satisfaction due to its effects on intrinsic motivation. Individuals who have autonomy in determining their actions and behaviors find work more interesting and rewarding, thus creating feelings of satisfaction with their job. Higher levels of autonomy increases the amount of intrinsic rewards from work. (Thomas and Velthouse 1990). Self-determination improves job satisfaction as accomplishments can be attributed more to the individual than to other persons (Liden, et al, 2000).

Empirical results show a positive relationship between self-determination and job satisfaction (Spreitzer ,et al, 1997; Smith and Langfield 2003). Although prior research indicates that competence and impact are positively correlated with job satisfaction, it does not

support a direct association of competence and impact to work performance (Spreitzer ,et al, 1997), as such, only meaning and self-determination are expected to influence job satisfaction. Thomas and Tymon (1994) postulate that empowerment would accrue in higher levels of job satisfaction. They state because the task assessments [i.e., the facets of empowerment] generate intrinsic rewards associated with the job, they should be positively related to job satisfaction.

Jun and Lee (2000) in a study of South Korean hotel employees find that four empowerment factors significantly predicted job satisfaction. Fuller, et al., (1999) in a study of nurses in the south-eastern USA, also find that psychological empowerment moderated (i.e. enhanced) the relationship between transformational leadership and job satisfaction. In addition, Geralis and Terziovski ( 2003) study on Australian banks reveal that empowerment practices, when simultaneously implemented, are associated with greater employee well-being, productivity, performance, and service quality. Based on this discussion, the following hypothesis is proposed.

H3: There is a positive association between employees empowerment and job satisfaction

### **Employees Empowerment and Job Involvement**

After reviewing the literature on Job Involvement, the researcher finds that there were four different approaches to study Job Involvement.

1. The first approach was suggested by Allport (1943), emphasizing Job Involvement as a job attitude characterized by an active participation at work, Job Involvement is the degree to which an employee is participating in his job and meeting such needs as prestige and autonomy. In this conceptualization, Job Involvement could be measured by the degree to which he feels that he is actively participating in his job (Blue, 1985). Job Involvement depends on the

extent to which an individual seeks some self – expression and actualization in his work or the opportunity to make job decisions, the feeling of contribution to a success, the chance to set one’s own work pace and self determination (Saleh and Hosk,1976).

2. The second approach is based on the central life interest type of Job Involvement developed by Dubin (1956) . Job Involvement is the degree to which the job is perceived to be the main source for the satisfaction of important needs versus non-job-oriented activities (Blue, 1985). Lawler and Hall (1970) consider Job Involvement as the degree to which a person perceives his total work situation to be an important part of his life and to be central to him and his identity because of the opportunity it affords him to satisfy his important needs.

3. The third approach considers Job Involvement as central to self -esteem. For example, Job Involvement is referred to as the degree to which the employee perceived that his job performance is central to his self – concept. As Hackman (1968) puts it, this type of Job Involvement operates in zero defect and MBO programs, by getting the employee to commit himself to goals he sets for himself. Thus, goals are important to the employee’s self -esteem and he or she becomes involved in achieving such goals.

4. The fourth approach suggested by Vroom (1964) , who defines Job Involvement as the degree to which the employee perceives that his job performance is consistent with characteristics that are central to his self – concept. Huselid and Day (1991) find that Job Involvement and organizational commitment inversely associated with the leave of work. Chughtai, (2008) also finds that there is a positive relationship between Job Involvement and job performance, organizational citizenship behavior. Noorliza and Hasni,( 2006) find that employee empowerment has a significant impact on Job Involvement ,job satisfaction and organizational commitment . This leads to Hypothesis 4.

H 4 : There is a positive association between employee empowerment and Job Involvement.

## **METHOD**

### **Sample**

The research design adopted for this study was cross-sectional survey method. The survey instrument used was a questionnaire. Questionnaire is the most used instrument in the literature of employee empowerment (Demitriades, 2005; Tjosvold and Sun, 2005; Ergeneli, et al, 2007). The target population was employees of post offices in Riyadh region were 1724 employee. A convenience sample of employees was randomly selected to ensure representative of the participants. This was applied to get perception of employees about the antecedents and consequences of employees empowerment in their organizations. The sample size was 862, the researcher visited the post offices over two – months period. The researcher personally handed out a structured self – administered questionnaire to employee who agreed to participate in the study and returned after at a later time to pick up the completed questionnaires. Of a total 862 questionnaires distributed, 629 usable ones were retrieved, resulting in response rate of about 73%. This rate is considered satisfactory for survey research type (Babbie, 2001).

### **Measures**

1. Role Clarity was assessed by Sawyer (1992), the scale has 4 items. The response was 5 – point likert scale with 1 representing very uncertain, 5 very certain (Cronbach alpha = 0.76).

2. Organizational trust was measured by 5 items scale developed by Tan and Lim ( 2009). The response was 5 – point Likert scale with 1 representing strongly disagree and 5 strongly agree (Cronbach alpha = 0.83).

3. Employee empowerment was measured by 12 items scale developed by Spreitzer (1995). The response was 5 – point Likert scale with 1 representing strongly disagree and 5 strongly agree (Cronbach alpha = 0.81).

4. Job involvement measure was developed by Kanungo (1982) . which consisted of 9 items , the response was 5 – point Likert scale with 1 representing strongly disagree and 5 strongly agree (Cronbach alpha = 0,80).

5. Job satisfaction was measured using a six-item instrument adapted from Rusbult and Farrell (1983). The response was 5 – point Likert scale with 1 representing strongly disagree and 5 strongly agree (Cronbach alpha = 0.81).

## Results

Table 1 presents means, standard deviation, and correlation among the study variables. Correlation analysis was used to describe the strength

Table 1 Descriptive statistics and correlations for all variables .

Variable	Mean	S .D.	1	2	3	4	5
Employees empowerment	4.3	.52	1.00				
Job involvement	4.2	.10	.76*	1.00			
Role clarity	3.6	.28	.61**	.33	1.00		
Job satisfaction	4.4	.22	.60*	.15	.37	1.00	
Organizational trust	4	.39	.73*	.17	.23	.19	1.00

\* p < 0.05; \*\* p < 0.01.

of the relationship between employees' perceptions of empowerment and job involvement. Results indicated that there was a significant positive correlation between employees empowerment and job involvement ( $r = .076$ ,  $p < .05$ ). Employees empowerment was significantly correlated with role clarity ( $r = .61$ ,  $p < .01$ ) and employees empowerment was also significantly correlated with job satisfaction ( $r = .60$ ,  $p < .05$ ). Finally, employees empowerment was also significantly correlated with organizational trust ( $r = .73$ ,  $p < .05$ ).

### **Hypotheses Testing**

The results of the regression analysis show that role clarity is positively related to employees empowerment ( $t = 2.37$ ,  $p < .05$ ). The result indicates that when role clarity increases, employees empowerment also increases. The beta coefficient for role clarity was significant ( $\beta = .73$ ,  $p < .05$ ), indicating a direct and positive relationship between role clarity and employees empowerment. ( $R^2 = .37$ ), this means role clarity was interpreted 37 % of the variance of employees empowerment. Thus support is found for Hypothesis 1. The results also show that organizational trust is positively related to employees empowerment ( $t = 3.3$ ,  $p < .05$ ). The result indicates that when organizational trust increases, employees empowerment also increases. The beta coefficient for organizational trust was significant ( $\beta = .49$ ,  $p < .05$ ), indicating a direct and positive relationship between organizational trust and employees empowerment ( $R^2 = .53$ ), this means organizational trust was interpreted 53 % of the variance of employees empowerment. Thus support is found for Hypothesis 2. As well as the results also show that employees empowerment is positively related to job involvement ( $t = 3.78$ ,  $p < .05$ ). The result indicates that when employee's empowerment increases, also job involvement increases. The beta coefficient for employees empowerment was significant ( $\beta = .45$ ,  $p < .05$ ), indicating a direct and positive relationship between employees empowerment and job

involvement ( $R^2 = .57$ ), this means employees empowerment was interpreted 53 % of the variance of job involvement. Thus support is found for Hypothesis 3.

Finally, the results show that employees empowerment is positively related to job satisfaction ( $t = 3.6, p < .05$ ). The result indicates that when employee's empowerment increases, also job satisfaction increases. The beta coefficient for employees empowerment was significant ( $\beta = .45, p < .05$ ), indicating a direct and positive relationship between employees empowerment and job satisfaction ( $R^2 = .36$ ), this means employees empowerment was interpreted 36% of the variance of job satisfaction. Thus support is found for Hypothesis 4.

## DISCUSSION

One of the major findings of this study is that a significant relationship exists between the organizational trust and employees empowerment. This result supports the studies that emphasize the importance of organizational trust as one of the factors influencing empowerment practices (e.g., Andrews, 1994, Ergeneli, et al, 2007). As Koberg, et al. (1999) stated trust tends to enhance communication, provide opportunities for effective problem solving and encourage individual discretion; thus, trust enables individuals to feel empowered. The current study results indicate that organizational trust provides a positive employees empowerment. When belief in the organization management's reliability, dependability and competence increases, employee empowerment increases as well. This result might mean that as individuals become aware of the fact that their personal goals can only be reachable with the cooperation of others and when the employees believe that their organization management is competent, reliable, responsible and dependable, they will probably view their organization management as willing to help them to complete their

tasks without error and on time, which increases the perception of employee empowerment.

Moye, et al. (2005) stated that trust contributes to a positive working environment characterized by supportive relationships. Since trust is a salient component of well functioning organizations (Ergeneli, et al., 2007), this finding can provide post offices managers with a useful framework for analyzing the concept of organizational trust as a contribution to individuals' perceptions of empowerment. This is one of the fundamental factors of managerial and organizational effectiveness.

Other major findings of this study are that a significant relationship exists between employee empowerment and job satisfaction. This result supports a consistent finding that employee empowerment is a significant predictor of job satisfaction (Liden, et al, 2000; Spreitzer, et al, 1997, Carless, 2004). It suggests that individuals who find the work they perform consistent with their beliefs, attitudes and behaviors are more likely to be happy in their job. Employee empowerment leads to job satisfaction among the employees. Job satisfaction arises due to employees being involved in decision making in post offices. Job satisfaction results from being taken for training and development to advance their skills, given challenging work and good employees relations. This finding is consistent with Moye and Hankin (2006).

Also findings relive that a significant relationship exists between the role clarity and employees empowerment. Role clarity helped to clarify employees work roles by increasing goal clarity and process clarity. This indicates that role clarity can improve employees 'understanding of the goals and objectives of their work roles, and the most appropriate behaviors to fulfill their work roles. This supports the view that organization management can communicate performance information to individuals, which can improve employees understanding of their own work roles. And This also supports prior research which shows that role clarity is an

antecedent of employees empowerment (Spreitzer 1996 ,King and King 1990; Sawyer 1992).

Finally, finding of this study is that a significant relationship exists between employees empowerment and job involvement , employee empowerment leads to increases job involvement through increase their contribution in achieving organizational objectives and giving the opportunity to control on their work , and finally their self -determination for work. This finding supports prior research which shows that employees empowerment have a significant impact on Job Involvement (Noorliza and Hasni, 2006).

## **CONCLUSION**

The research results show statistically significant positive relationships between role clarity, organizational trust and employees empowerment, and also a statistically significant positive relationships between employees empowerment and job involvement, job satisfaction. The research has shown that empowerment in organizations is now a common management approach; empowerment assumes that both managers and employees will receive sufficient preparation in order to undertake empowerment process.

Employees empowerment do exist in post offices but needs to enhanced, supported by management and employees. Therefore, there is need for good leadership to be in place at all levels of the organization to formulate and implement polices of employees empowerment. Employees empowerment increases job involvement and promotes good employee relations in organization. Management should involve and consult employees in decision making process of their organizations. In addition there is need to train employees properly to cope with any changes in macro – environment. Employees who are empowered will make the organization to survive, grow and face challenges with confidence. Management at all levels of the

organization should trust their employees and encourage open communication.

Employees empowerment is strongly criticized in increasing the work load of employees. Therefore, management should ensure that employee empowerment is seen as an opportunity rather a strategy to increase the work load of other employees. Similarly management should put in place internal controls to check the misuse of power and authority in their organizations. Thus employees empowerment without adequate training of employees would be a major treat to employee relation in organization. Managers should note that empowerment will not happen naturally in organization, but must be initiated and is an ongoing process.

This research will contribute to the existing literature of employees empowerment, specifically will inspire managers to come up with various interventions on how to retain employees in their organizations by using employees empowerment as one of the strategies.

This research will make management to view employees empowerment as an opportunity of maximizing job involvement and job satisfaction. One of the main limitations of this study was the use of a cross – sectional design, which does not allow for assessment of impact or cause and effect. Thus, I could not test whether role clarity and organizational trust cause employees empowerment, nor could I test where employee empowerment positively cause higher level of job involvement and job satisfaction. Another limitation of the current study relates to characteristics of the sample. The study was conducted in post offices. I don't know whether these results would generalize to other types of organizations.

Future research needs to explore the effects of variables that were not measured in the current study, which can also directly or indirectly influence employees empowerment such as organization' structure,

climate, and culture, the consequences of employee empowerment such as organizational performance and work turnover.

## REFERENCES

- Andrews, G., Mistrust, The hidden obstacle to empowerment, *Human Research Magazine*, 39, 1994, 66-70.
- Babbie, E., *The practice of social research*, 2nd., EDN., Wad mouth, Belmont, 2001.
- Balzer, W., *Users' manual for the job descriptive index (JDI: 1997 Revision) and the job in general (JIG) scales*, Bowling Green, OH: Bowling Green State University, 1997.
- Barney, B. and Hansen, H., Trustworthiness as a source of competitive advantage, *Strategic Management Journal*, 15, 1994, 175-190.
- Bartlett, Ch. and Ghoshal, S., *The individualized corporation*, New York, N.Y.: Harper Business, 1997.
- Benis, W. and Nanus, B., *Leaders*, New York: Harper and Row, 1985.
- Blanchard, K., *The three keys to empowerment*, San Francisco: Barrett-Koehler Publishers, Inc., 1999.
- Blau, G., A multiple study investigation of the dimensionality of job involvement, *Journal of Vocational Behavior*, 27, 1985, 19-36.
- Block, P., *The empowered manager*, Sans Francisco: Jossey press, 1987.
- Bowen, D. and Lawler, E., The empowerment of service workers: what, why, how and when, *Sloan Management Review*, 32, 1992, 31-39.
- Bowen, D. and Lawer, E., Empowering service employees, *Sloan Management Review*, 36, 1995, 73-85.
- Brymer, R.A., Employee empowerment, a guest-driven leadership strategy, *The Cornell Quarterly*, 32, 1991, 56-58.

- Carless, S., Does psychological empowerment mediate the relationship between psychological climate and job satisfaction, *Journal of Business and Psychology*, 18, 2004, 405-425.
- Chughati, A., Impact of job involvement on role job performance and organizational citizenship behavior, *Behavioral and Applied Management*, 30, 2008, 169-183.
- Conger, J. and Kanungo R., The empowerment process: integrating theory and practice, *Academy of Management Journal*, 13, 1988, 471-482.
- D'anunzio, N. and McAndrew, J., Re-empowering the empowered - the ultimate challenge, *Personal Review*, 3, 1999, 258-279.
- Demitriades, S., Employee empowerment in the Greek context, *International Journal of Manpower*, 26, 2005, 80-92.
- Ergeneli, A., Psychological empowerment and its relationship to trust immediate managers, *Journal of Business Research*, 60, 2007, 41-49.
- Fracard, K., The real meaning of empowerment, *Contract Management*, 15, March 2006, 1-7.
- Fuller, J.B., The effects of psychological empowerment on transformational leadership and job satisfaction, *Journal of Social Psychology*, 139, 1999, 389-391.
- Geralis, M. and Terziovski, M., A quantitative analysis of the relationship between empowerment practices and service quality, *Total Quality Management and Business Excellence*, 14, 2003, 45-62.
- Gibson, C., Concept analysis of empowerment, *Journal of Advanced Nursing*, 16, 1991, 354-361.
- Gresley, K., Employee empowerment, *Employee Relation*, 27, 2005, 364-368.
- Griffith, M., Organizational empowerment in community mobilization to address youth violence, *American Journal of Preventive Medicine*, 34, 2008, 589-598.

- Hackman, J.R., Effects of task, characteristics on group products, *Journal of Experimental Social Psychology*, 4, 1968, 162-187.
- Hall, M., The effect of comprehensive performance measurement systems on role clarity, psychological empowerment and managerial performance, *Accounting, Organizations and Society*, 33, 2008, 141-163.
- Hardy, C. and Leiba-O'Sullivan, S., The power behind empowerment: implications for research and practice, *Human Relations*, 51, 1998, 451-483.
- Hart, K., Exploring organizational trust and its multiple dimensions: a case study of General Motors, *Organization Development Journal*, 4, 1986, 31-39.
- Hosmer, L., Trust: the connecting link between organizational theory and philosophical ethics, *Academy of Management Review*, 20, 1995, 379-403.
- Hills, S., Why quality circles failed but total quality might succeed, *British Journal of Industrial Relations*, 27, 1991, 541-568.
- Huff, L. and Kelley, L., Levels of organizational trust in individualist versus collectivist societies: a seven-nation study, *Organization Science*, 14, 2003, 81-90.
- Huselid, M.A. and Day, N.E., Organizational commitment, job involvement, and turnover: A substantive and methodological analysis, *Journal of Applied Psychology*, 76, 1991, 380-391.
- Irvine, D., et al., Measurement of staff empowerment within health service organizations, *Journal of Nursing Measurement*, 7, 1999, 79-95.
- Jackson, S. and Schler, R., A meta-analysis and conceptual critique of research on role ambiguity and role conflict in work settings, *Organizational Behavior and Human Decision Processes*, 36, 1985, 16-78.
- Jun, J. and Lee, C., A study of psychological empowerment of hotel employees in South Korea, In *Proceedings from the 6th Asia*

- Pacific Tourism Association (APTA) Conference*, Phuket, Thailand : Prince of Songkla University, 2000.
- Kahn, R., *Occupational stress: studies in role conflict and ambiguity*, New York: Wiley, 1964.
- Kanungo, R., *Work Alienation*, New York: Praeger, 1982.
- King, L. and King, E., Role conflict and role ambiguity: a critical assessment of construct validity, *Psychological Bulletin*, 107, 1990, 48-64.
- Klein, K., *Power and participation in the workplace: Implications for empowerment theory, research and practice*, University of Maryland at College Park, Working Paper, College Park, MID, 1998.
- Koberg, C., Antecedents and outcomes of empowerment: empirical evidence from the health care industry, *Group and Organization Management*, 34, 1999, 71-91.
- Kramer, R., Trust and distrust in organizations: emerging perspectives, enduring questions, *Annual Review of Psychology*, 50, 1999, 569-598.
- Lawler, E. and Hall, D., Relationship of job characteristics to job involvement, satisfaction, and intrinsic motivation, *Journal of Applied Psychology*, 54, 1970, 305-312.
- Liden, R., An examination of the mediating role of psychological empowerment on the relations between the job, *Interpersonal relationships and Work outcomes*, *Journal of Applied Psychology*, 85, 2000, 407-416.
- Locke, E., The nature and causes of job satisfaction, In M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology*, Chicago: Rand McNally College Publishing Company, 1976, 1297-1347.
- Mishra, A. and Spreitzer, M., Explaining how survivors respond to downsizing: the role of trust, empowerment, justice and work redesign, *Academy of Management Review*, 23, 1998, 568-588.

- Moye, J., Teacher–principal relationships, exploring the linkages between empowerment and interpersonal trust, *Journal of Education Administration*, 43, 2005, 260-277.
- Moye, M. and Henkin, A., Exploring associations between employee empowerment and interpersonal trust in managers, *Journal of Management and Development*, 25, 2006, 101-117.
- Noorliza, A. and Hasni, M., The effects of total quality management practices on employees work related attitudes, *The TQM Magazine*, 18, 2006, 30-43.
- Ongori, H. and Shunda, W., Managing behind the scenes: employee empowerment, *International Journal of Applied Economics and Finance*, 20, 2008, 1-11.
- Ongori, H., A review of literature on employee turnover, *African Journal of Business Management*, 1, 2007, 49-54.
- Ongori, H., Managing behind the scenes: a view point on employee empowerment, *African Journal of Business Management*, 3, 2009, 9-15.
- Pitts, D., Leadership, empowerment and public administration, *Review of Public Personnel Administration*, 25, 2005, 5-28.
- Ripley, R. and Ripley, M., Empowerment, the cornerstone of quality: Empowering management in innovative organizations in the 1990's, *Management Decision*, 30, 1992, 20-43.
- Robbins, T., An integrative model of empowerment process, *Human Resource Management Review*, 12, 2002, 419-443.
- Rousseau, D., Not so different after all: A cross-discipline view of trust, *Academy of Management Review*, 23, 1998, 393-404.
- Rusbult, C. and Farrell, D., A longitudinal test of the investment model: the impact on job satisfaction, job commitment and turnover variations in rewards, costs, alternatives and investments, *Journal of Applied Psychology*, 68, 1983, 429-43.

- Saleh, S.D. and Hosek, J., Job involvement: concepts and measurements, *Academy of Management Journal*, 19, 1976, 213-224.
- Sawyer, J., Goal and Process Clarity: Specification of multiple constructs of role ambiguity and a structural equation model of their antecedents and consequences, *Journal of Applied Psychology*, 77, 1992, 130-142.
- Smith, C. and Mouly, V., Empowerment in New Zealand firms: insights two cases, *Journal of Empowerment and organizations*, 6, 1998, 69-80.
- Smith, D. and Langfield, S., The effect of participative performance evaluation on accountants, psychological empowerment, organizational commitment and job satisfaction, *Working Paper*, 2003.
- Spatz, D., Team-building in construction, *Practice Periodical on Structural Design and Construction*, 5, 2000, 93-105.
- Spector, P., *Job satisfaction: application, assessment, causes, and consequences*, Thousand Oaks, CA: Sage Publications, 1997.
- Spreitzer, G., Psychological empowerment in the workplace: dimensions, measurement, and validation, *Academy of Management Journal*, 38, 1995, 1442-1465
- Speitzer, G., Social structural characteristics of psychological empowerment, *Academy of Management Journal*, 39, 1996, 483 - 504.
- Spreitzer, G., A dimensional analysis of the relationship between psychological empowerment and effectiveness, satisfaction, and strain, *Journal of Management*, 23, 1997, 679-704.
- Suminen, T., Work empowerment as experienced by head nurses, *Journal of Nursing Management*, 13, 2005, 147-153.
- Tan, H., and Lim, K., Trust in coworkers and trust in organizations, *The Journal of Psychology*, 143, 2009, 45-66.

- Tan, H., and Tan, C., Towards the differentiation of trust in supervisor and trust in organization, *Genetic, Social, and General Psychology Monographs*, 126, 2000, 241-260.
- Thomas, K.W. and Tymon, W.G., Does empowerment always work: understanding the role of intrinsic motivation and personal interpretation, *Journal of Management Systems*, 6, 1994, 1-13.
- Thomas, W. and Velthouse, A., Cognitive elements of empowerment: an interpretive model of intrinsic task motivation, *Academy of Management Review*, 15, 1990, 666-681.
- Tjosvold, D. and Sun, H., Effects of power concepts and employee performance on managers empowering, *Journal of Leader and organization Development*, 27, 2005, 217-234
- Tubre, T. and Collins, M., Jackson and Schuler (1985) revisited: a meta – analysis of the relationship between role ambiguity, role conflict and job performance, *Journal of Management*, 26, 2000, 155-169.
- Tzafirir, S., The consequences of emerging HRM practices, trust in their managers, *Journal of Personnel Review*, 33, 2004, 624-647.
- Ugboro, O. and Obeng, K., Top management leadership, employee empowerment, job satisfaction and customer satisfaction, in TQM organization: an empirical study, *Journal of Quality Management*, 5, 2000, 247-272.
- Vroom, V., *Work and motivation*, New York, Wiley, 1964.

## **Appendix 1**

### **Employees Empowerment (1 = Strongly disagree; 5 = Strongly agree)**

#### **I. Meaning**

Work is important to them .  
Job activities are personally meaningful to them .  
Caring about what they do on the job .  
Work that they do is meaningful to them .

#### **II. Competence**

Their confidence in their abilities to do their jobs .  
Their jobs are within the scope of their abilities .  
Their assurance about their capabilities to perform their work activities  
They have mastered the skills necessary to do their jobs .

#### **III. Self-determination**

Having significant autonomy in determining how they do their jobs .  
Being able to decide on their own how to go about doing their jobs .  
Having considerable opportunity for independence and freedom .  
Having a chance to use personal initiative in carrying out their work .

#### **IV. Impact**

Having a large impact on what happens in their departments .  
Having a great deal of control over what happens in their departments .  
Having significant influence over what happens in their department .  
Making their opinions count in departmental decision-making process .

**Role Clarity (1=very uncertain, 5 =very certain)**

**I. Goal Clarity**

My duties and responsibilities .

The goals and objectives for my job .

How my work relates to the overall objectives of my work unit .

The expected results of my work .

What aspects of my work will lead to positive evaluations .

**II. Process Clarity**

How to divide my time among the tasks required of my job .

How to schedule my work day .

How to determine the appropriate procedures for each work task .

The procedures I use to do my job are correct and proper .

Considering all your work tasks, how certain are you that you know the

best way to do these tasks?.

**Job Satisfaction (1=strongly disagree, 5 =strongly agree)**

If I had to decide all over again, I would still choose the job I have now .

If a good friend of mine was interested in working in a job like mine for .

my employer, I would recommend it .

This job is my ideal job .

I like my job .

I am satisfied with my current job .

This is just like the job I wanted when I started in this job .

**Job Involvement (1=strongly disagree, 5 =strongly agree)**

Most of my interests are centred around my job .

I live ,eat ,breath my job .

The most important things that happen to me involve my present job .

I consider my job to be very central to my existence .  
I have very strong ties with my job which would be very difficult to break  
Most of my personal life goals are job – oriented .  
Usually I fell detached from my job .  
To me , my job is only a small part of who I am .  
I am very much involved personally in my job .

**Organizational Trust (1=strongly disagree, 5 =strongly agree)**

If I had my way, I wouldn't let the organization have any influence over the issues that are important to me.  
I would be willing to let the organization have complete control over my future in the organization.  
I would be comfortable allowing the organization to make decisions that directly impact me, even in my absence.  
I am willing to rely on the organization to represent my work accurately to others.  
I am willing to depend on the organization to back me up in difficult situations.

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Business management is a primary area of market competitiveness and sustainability in all types of industries. Managerial insights in the global and/or local business are major drivers of organizational innovation, business dynamics and business value chain. Managerial review will be an integral player in the 21<sup>st</sup> knowledge industry and economy.

Nevertheless, how to foster managerial review and insights have not been appropriately explored in terms of global or local business perspectives. In fulfilling of this urgent and timely theme, business management need more sustainable profitability, better operational excellence, higher goods and services quality, more proper market promotion, stronger leaderships, and more accurate financial planning in order that business organizations are more competitive.

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