

THE RELATIONSHIP BETWEEN HRM AND CHINESE SME PERFORMANCE

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ABSTRACT

China has undergone drastic changes from a planned to a market-oriented economy. Economic structural change has caused changes in the organizational behavior of enterprises, especially in the small and medium sized enterprises (SMEs), which have gained much more management autonomy since the economic reform. Key research questions are 1) have human resource management (HRM) practices in Chinese SMEs been changed? 2) what are HRM approaches that are best suited for Chinese enterprises? and 3) is there an interrelationship between HRM and SME performance in China? This paper examines HRM practices in 74 selected Chinese SMEs, using cluster analysis. The results from the cluster analysis demonstrate that HRM focusing on performance management and incentive management are the two best methods for Chinese SMEs to obtain the favorable behavioral outcomes, whereas the enterprises emphasizing free market selection, as well as performance management, gain better enterprise performance. There appears an underlying association among HRM practices, HRM outcomes and enterprise performance in Chinese SMEs, especially for private and foreign owned companies. However, because of the distorted factors existing in the transitional economy, such as the one in China, this relationship is not clear in all Chinese SMEs.

KEYWORDS

Human resource management, small and medium enterprise, China, cluster analysis, performance management, transitional economy.

INTRODUCTION

China has undergone major economic and social changes over the last two decades as it has been moving from a centrally planned system, towards a market-oriented economy. Changes in economic structure have led to changes in organizational behavior in enterprises, especially in the small and medium sized enterprises (SMEs) that have gained much management autonomy since the reforms began in 1978. SMEs have thus been the vanguard of better human resource management (HRM) in China. However, the Chinese economic system is still somewhat unique, and this begs the question of 'what HRM methods are best for Chinese enterprises?' The question is important because most of China's employment growth and a

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fairly large proportion of its growth in value added are attributable to SMEs. There are a variety of studies on comparison of Chinese personnel management system with western HRM practice (for example, Child 1994; Ding, Fields & Akhtar 1997; Goodall & Warner 1997; Lam 1993; Lu & Bjorkman 1997; Tsang 1994; Wang 1987; Warner 1993, 1996; Zhao 1994; Zhu 1997), but few on HRM practice and its impact on enterprise performance in Chinese SMEs. This paper seeks to fill the gap.

KEY RESEARCH QUESTIONS

It has been discussed, in theory (e.g. Beer, Spector, Lawrence, Mills & Walton 1984; Fombrun, Tichy & Devanna 1984; Guest 1987; 1997; Schuler 1988; 1997), that the practice of HRM might lead to better HRM outcomes that can enhance firm performance. The empirical studies on the linkage between HRM and performance result in two different arguments. One supports the view that the underlying practices of HRM enhance firm performance (Delaney & Huselid 1996; Huselid 1995; Huselid, Jackson & Schuler 1997; Youndt et al. 1996; Stroh & Caligiuri 1998). The other argues that there is a weak link between HRM and performance (Lee & Chee 1996; MacDuffie 1995; Purchell 1995; Dunphy & Stace 1992; Wong et al. 1997). However, there is a general consensus among researchers (e.g. Miller 1987; Porter 1985; Hamel & Prahalad 1994; Pfeffer 1994; 1998) that greater firm performance can be achieved via better managing their human resource. As a result, firms are more able to create sustainable competitive advantage. In the context of the transitional Chinese economy, what are the key elements of HRM practices that may contribute to better behavioral outcomes, and thus lead to better enterprise performance? More importantly, is there a linkage between HRM and performance also in Chinese SMEs? These are the basic research questions the paper aims to answer.

HYPOTHESES

The basic hypothesis is that better HRM will generally be associated with better performance (Beer et al. 1984; Fombrun et al. 1984). Better HR management (see discussions from Child 1994; Ding et al. 1997; Goodall & Warner 1997; Laaksonen 1988; Lin & Yao 1999; Thomas 1993; Tsang 1994; Zhao 1994; Zhu 1997; 1999) in Chinese SMEs is characterized by firms practising the following seven elements of HRM:

- 1) free market selection of staff and workers (FMS);
- 2) provision of incentive reward systems by linking performance with payment (PLP);
- 3) provision of social security and welfare scheme for retention purpose (SSS);
- 4) training and development of competent and skilled workers (T&D);
- 5) exercise of performance evaluation to promote staff instead of promotion of staff based on superiors' personal opinions toward and relationship with subordinates as well as the length of services in firms (PEP);
- 6) management communication to encourage staff participation in management and decision-making (DMP); and
- 7) exercise of appropriate labor union's power to create cohesion and to truly protect staff interest and clarify labor management relationship (TU).

It is also hypothesized that practices of the above-mentioned elements of human resource management will lead to better HRM outcomes, which is characterized by four outcome indicators (Beer et al. 1984):

- *A low level of staff turnover* suggests that the organization will achieve cost effectiveness via less staff turnover (Clayton 1994; Huselid 1995). Annual staff turnover rate less than 10 percent is regarded as achieving one of the better HR outcomes as a result of HRM practices (Arthur 1994; Beer et al. 1984);
- *Staff commitment* means that staff is willing to sacrifice individual self-interest to achieve organizational objectives (Benkhoff 1997; Guest 1987; 1997; Mowday, Porter & Steers 1982).
- *Staff congruence* means that staff personal career goals are consistently linked with organizational goals, and staff is generally enthusiastic about likely advancing personal career within the environment of current organizational setting (Guest 1987; Benkhoff 1997).
- *Competent staff* are generally well educated and trained. They are also constantly developed in their skills and knowledge to meet new market demands and achieve organizational objectives (Beer et al. 1984; Zhu 1999).

Better HR management and HRM outcomes should lead to better firm performance. Better firm performance is generally measured by increasing sales and productions, market competitiveness and growth potential (e.g. Lähteenmäki, Storey & Vanhala 1998; Ngo et al. 1998), which are characterized by:

- *Firms' increasing sales and productions* for a consecutive period of three years;
- *Market competitiveness* of firms in terms of their market position and market shares; and
- Firms having *expansion plan* to display their developmental 'blueprints' for the future in terms of staffing, production, and sales and profits attainments.

The objective of the study is to find ways to increase sustainable development for SMEs in China, via the chain of better HRM, better HRM outcomes, to better firm performance, and then to better and more sustainable economic performance in the national economy. Because of the complex nature of Chinese systems and culture, it is unlikely that there would be a simple linear correlation between the variables. Therefore, there is a need to look at the patterns of association between variables through clustering approach.

RESEARCH METHODOLOGY

Both quantitative and qualitative methods were adopted. Primary research amongst Chinese SMEs is not easy — there are problems of communication and trust (for example, managers are reluctant to divulge information). Preliminary research indicated that the most effective method would be to carry out interviews — and 80 small and medium size enterprise managers spreading in ten major cities in China were selected and interviewed (see Table 1). In the process of tabulating the data for statistical analysis, data from six companies — including two in Fuzhou, one in Guangzhou and three in Hanzhou — were deemed inegible because their managers did not provide sufficient information for data entry. Hence the analysis in this research is based on *only* 74 companies interviewed.

A pro forma interview structure was combined with the following eight open-ended questions:

- Question 1:** Please briefly introduce your company: what do you produce, or what kinds of services do you provide? How many staff do you have? Who owns the company?
- Question 2:** When was the company established? Since the establishment, have there been any turning points in the process of development?
- Question 3:** In the process of development, what are the main factors to promote the development? What hindered the development?
- Question 4:** Show quantitative figures of your company's production and sales in the last consecutive five years, your market position and development trends if available.
- Question 5:** What is your company's current HRM practice? What is the percentage of market selection of your staff as compared with the percentage of staff allocated by the state agents? How do you distribute resources in wages, bonus and other social benefits? Do you have staff training? How do you manage communication between staff and management? Does your staff participate in management decision making? What is the trade union's role?
- Question 6:** Indicate the number of your staff in the past five consecutive years; the level of your staff education (i.e. proportion of university, college and high school graduates). How competent, committed and congruent do you think your staff is in comparison with staff in other organizations in the same industry?
- Question 7:** In the next five years, what is your company's development plan in terms of production, sales and staffing?
- Question 8:** Could you please list three main reasons that would most impact the growth of your firm?

The author conducted all interviews in Chinese (Mandarin). However, the data collected from interviewing were recorded using note-taking and immediately afterward were translated into English in a standard table format covering the above-mentioned eight questions, as well as filling in the structured survey questionnaires accordingly. In the quantitative analysis, both binary variables (0, 1) and categorical variables (0, 1, 2...) are used. This paper displays the results from the cluster analysis.

RESULTS

The process of conducting the cluster analysis is shown in Figure 1. The first step is to classify seven independent variables of HRM practices, using a hierarchical clustering with squared Euclidean distance and Ward's method (Malhotra et al. 1996).

The last stage of agglomeration schedule (Box 1) shows that the coefficient value drops sharply from stage 69 onward to 73. Hence, a five-cluster solution is chosen for this study.

Figure 2 displays different socio-demographic characteristics of the five clusters according to their mean values of different HRM practices. Those high mean values in each cluster are also recorded in Table 2 to demonstrate distinctiveness of each cluster.

The Chinese SMEs in the first cluster tend to emphasize HRM practice on market-based selection (FMS) and performance linked with payment (PLP), with the highest mean score for

FMS on 1.85 and a relatively high mean value for PLP on 0.85. Often performance-based payment is likely to be the result of following the rules in a market economy. Therefore, we name this cluster as 'Market Selection' SME group.

The second cluster consists of those SMEs that focus on staff performance appraisal (mean for PEP = 2.00) and training and development (mean for TD = 2.00), with a comparatively high mean values also on free market selection (1.87), provision of social benefits (1.17) and staff involvement in management decision making (0.96). We define this cluster as 'Performance Management' Group.

SMEs in the third cluster have a strong union influence (mean for TU = 2.00) which could help enforce provision of social benefits to all staff (with mean for SSS = 1.50). Hence this cluster is named as 'Unionization' Group.

In contrast to the 'Unionization' Group, SMEs in the fourth cluster distinguish themselves by a much less union influence (mean value for TU = 0.25), but focus relatively more on the provision of social benefits (mean value for SSS = 1.50). At the same time, such practice of provision of social benefits goes hand-in-hand with market selection of staff (0.92) as well as training (0.67). SMEs in this group tend to recruit their staff and workers from market with promise of providing staff with a relatively low level of social security scheme and minimum training. A name such as 'a Social Security' Group would be appropriate for this cluster.

SMEs in the last cluster not only select staff from market (with mean value for FMS = 2.00), but also provide staff with social welfare benefits (mean for SSS = 1.40). Furthermore, firms in this cluster also focus on practising performance-based payment (mean for PLP = 1.00) as well as involving staff in management decision making (mean for DMP = 1.00). It is reasonable, therefore, to call this cluster as 'Incentive Management' Group.

After identifying these five clusters of the Chinese SMEs, and giving each cluster their appropriate names, we now move to the second step of the cluster analysis. The step describes these clusters in terms of their HRM practices, HRM outcomes, and enterprise performance as well as enterprise ownership. The aim is to examine the interrelationships between HRM practices, outcomes and performance.

Our main concern in this study is to identify key factors for the growing SMEs in China. It is believed that better enterprise performance leads firms to further expand (Giaoutzi et al. 1988; Curran 1997; Hendry et al. 1995). Thus firstly, we look at the mean values of three enterprises' performance indicators across five clusters (Table 3) in order to determine which cluster shows the best enterprise performance. Obviously, SMEs in the second cluster have achieved relatively better performance than that in other clusters. The average mean values in clusters 1 and 3 are very close, except increasing sales and productions (ICRSP), and growth potential (EXP) in cluster 1 are shown better than that in cluster 3. However, market competitiveness is stronger in cluster 3 than in cluster 1. Hence, we regard these two clusters as the second best SME performance group. The third best performance group is in cluster 5, whilst the least performance group is in cluster 4.

To examine the HRM outcomes of the five clusters, both SMEs in cluster 2 and 5 indicate relatively better HRM outcomes. The second best HRM outcomes are obtained by SMEs in cluster 1, the third in cluster 3, and the least HRM outcomes lie again in cluster 4.

With regard to enterprise ownership, it is found that many domestic privately owned (DPE) and foreign- private owned enterprises (FPE) are in clusters 1 and 2 with better HRM outcomes and enterprise performance through market selection and performance management. Whilst state-owned (SOE) and joint ventured enterprises (JVE) tend to be more unionised. Incentive management (cluster 5) has been practiced mainly in affiliated state-owned and domestic private owned enterprises. A minimum social welfare benefit is more likely to be provided by collectively owned and affiliated state-owned enterprises than by domestic private-and foreign private owned enterprises.

DISCUSSIONS AND CONCLUSION

The better HRM outcomes and the better enterprise performance are achieved dominantly by the SMEs in the cluster 2 — ‘Performance Management’ group and cluster 1 — ‘Market Selection’ group. This implies that HRM methods focusing on free market selection of staff and workers and on overall performance management would be helpful for Chinese SMEs to attain better HRM outcomes and, in turn, better firm performance.

The worst enterprise performance and HRM outcomes lie in cluster 4 — ‘Social Security’ group represented largely by affiliated state-owned and collectively owned enterprises. According to Goodall and Warner (1997), the ‘cradle to grave’ social welfare benefits in Chinese enterprises have mainly inherited from the previously planned economic regime. Although the economic reforms since 1978 have aimed to change the rigid provision of social welfare system and to replace it with an incentive performance-driven pay system, staff and workers, particularly in the state-owned or affiliated state-owned enterprises, are still entitled to obtain social welfare benefits bestowed by the state. The result shown in this study echoes the conclusion drawn by Goodall and Warner (1997) in this aspect. The Chinese SMEs interviewed (particularly of the state-owned or affiliated state-owned enterprise) have still provided social security scheme to their staff and workers. This may have negative impact on their overall performance, as it is indicated that this group failed to demonstrate desirable performance outcomes.

However, it is interesting to notice that not all SMEs that have achieved better HRM outcomes would necessarily lead to better enterprise performance. For example, the SMEs with the best HRM outcomes in cluster 5 — ‘Incentive Management’ group does not lead to better performance. In fact, their SME performance ranks only in the third place. On the contrary, the SMEs in cluster 3 — ‘Unionisation’ group shows their relatively favourable firm performance (ranking No. 2), even their HRM outcomes are poorer. It is suspected that some distorted factors may have caused firms without favourable HRM outcomes to outperform those firms with favorable HRM outcomes. This undermines the effectiveness of HRM on SME performance in China. In the context of Chinese transitional economy, the distorted factors could have either helped or hindered SMEs’ growth. Such factors include:

- government and institutional supports that cover favorable policies, regulations and incentive bank loans;

- unfair competition, imperfect market conditions and legal system that would affect SME operation.
- growth factors referring to internal competency level of labor force, quality of products and service firms capable to provide and strategic location of premises of firms.

The cluster analysis conclude that performance management and incentive management are the two best HRM methods for Chinese SMEs to obtain the favourable HRM outcomes, whereas free market selection and performance management would best help SMEs to gain better enterprise performance. There is certainly underlying association between HRM practices, HRM outcomes and enterprise performance in Chinese SMEs, especially for private and foreign owned companies. However, because of the above-mentioned distorted factors, such relationship is not clear in all Chinese SMEs examined.

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Table 1. Interview Samples – City Distribution, 1996-1997

City	Number of Firms interviewed Sep - Oct 1996	Number of Firms interviewed Oct-Nov 1997	Total	Final selection for analysis
Beijing	3	0	3	3
Fuzhou	6	7	13	11
Guangzhou	0	12	12	11
Hanzhou	5	0	5	2
Kunming	0	8	8	8
Nanning	0	21	21	21
Shanghai	5	0	5	5
Shenzhen	6	0	6	6
Tianjin	4	0	4	4
Xiamen	0	3	3	3
Total	29	51	80	74

Figure 1. Two Steps of Cluster Analysis

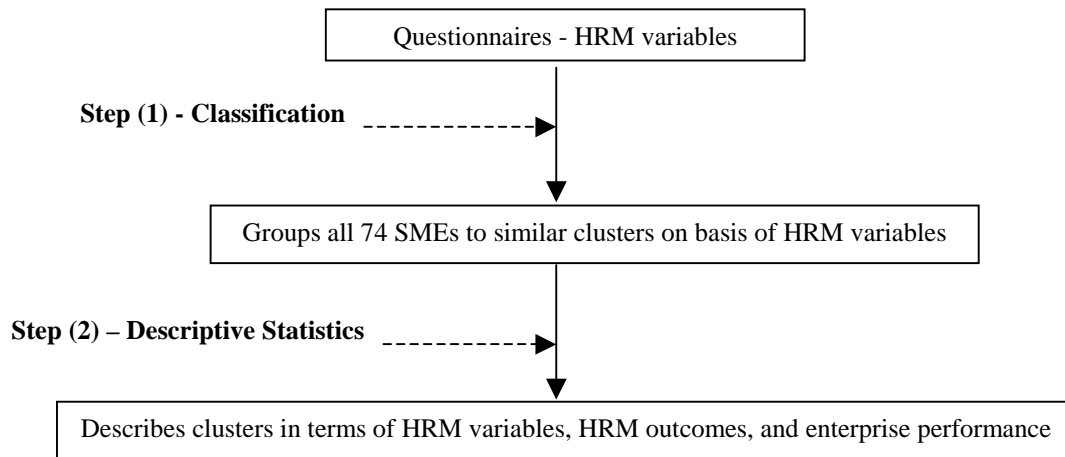
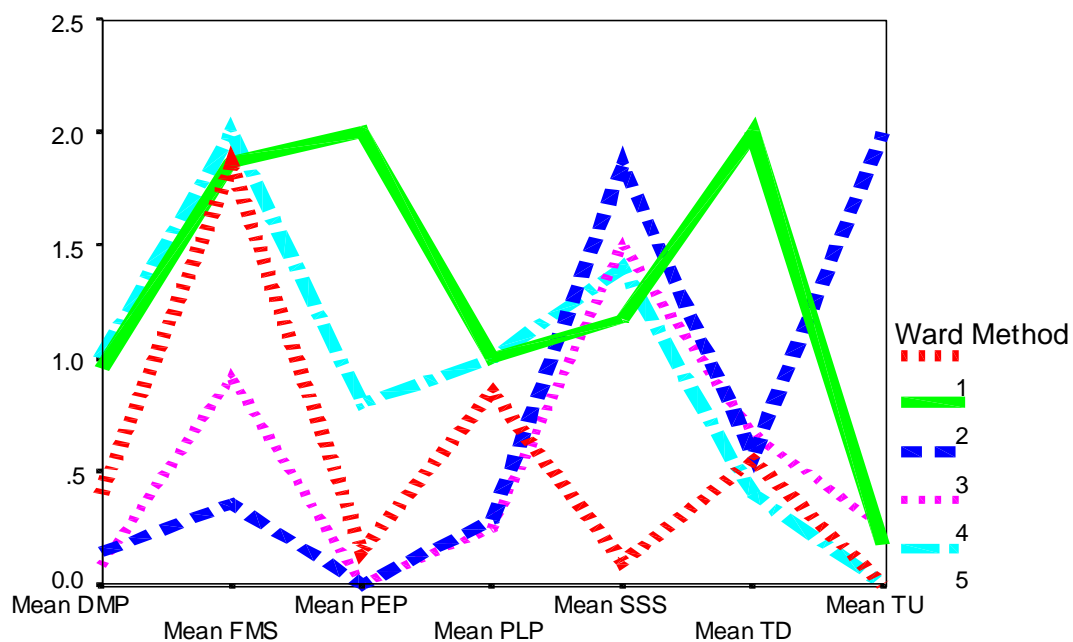


Figure 2: Socio-Demographic Characteristics of Five Clusters



Box 1. Partial Results of Hierarchical Cluster Analysis

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* * * * * H I E R A R C H I C A L C L U S T E R   A N A L Y S I S * * * * *
Agglomeration Schedule using Ward Method (CONT.)

Stage      Clusters  Combined      Stage Cluster 1st Appears      Next
Cluster 1  Cluster 2      Coefficient  Cluster 1  Cluster 2      Stage
45          37         56           8.750000          0           35           47
46          29         43           9.583333          0           37           65
47          37         40          10.500000          45           0           60
48          10         34          11.416667          25           0           59
49          35         62          12.666667          34           8           56
50          4          7           13.916667          30           38           53
51          8          15          15.250000          42           2           63
52          25         26          16.616667          33           44           70
53          2          4           18.066668          0           50           58
54          30         41          19.566668          36           10           62
55          3          5           21.066668          40           0           64
56          20         35          22.816668          43           49           66
57          1          12          24.691668          29           27           67
58          2          11          26.705954          53           39           62
59          10         46          29.122620          48           16           69
60          9          37          31.920238          41           47           68
61          6          38          35.120239          28           0           64
62          2          30          38.489288          58           54           67
63          8          19          41.989288          51           0           66
64          3          6          45.539288          55           61           69
65          21         29          50.105953          31           46           68
66          8          20          55.284523          63           56           71
67          1          2          61.526188          57           62           70
68          9          21          69.411903          60           65           71
69          3          10          77.502487          64           59           73
70          1          25          87.662491          67           52           72
71          8          9          110.387764          66           68           72
72          1          8          179.468033          70           71           73
73          1          3          286.094604          72           69           0
    
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Table 2 Distinctiveness of Each Cluster and Their Names

List of Clusters	Definition of Variables	Highest Mean Values	Names of Clusters
First Cluster	(1) free market selection (2) performance linked with payment	FMS = 1.85 PLP = 0.85	C1 = Market Selection
Second Cluster	(1) training & development (2) performance evaluation process (3) free market selection (4) provision of social security scheme (5) staff involvement in decision making process	T&D = 2.00 PEP = 2.00 FMS = 1.87 SSS = 1.17 DMP = 0.96	C2 = Performance Management
Third Cluster	(1) strong trade union influence (2) provision of social security scheme	TU = 2.00 SSS = 1.86	C3 = Unionization
Fourth Cluster	(1) provision of social security scheme (2) free market selection (3) training & development	SSS = 1.50 FMS = 0.92 TD = 0.67	C4 = Social Security
Fifth Cluster	(1) free market selection (2) provision of social benefits (3) performance linked with payment (4) staff involvement in decision making process	FMS = 2.00 SSS = 1.40 PLP = 1.00 DMP = 1.00	C5 = Incentive Management

Table 3: Descriptive Statistics of Cluster Analysis

Variables	Clusters	C1	C2	C3	C4	C5
	Mean Value	Market Selection	Performance Management	Unionisation	Social Security	Incentive Management
HRM Practices						
PLP = Performance linked with payment	0.85	1.00	0.29	0.25	1.00	
DMP = Decision making process	0.40	0.96	0.14	0.08	1.00	
FMS = Free Market Selection	1.85	1.87	0.36	0.92	2.00	
TD = Training and Development	0.55	2.00	0.57	0.67	0.40	
TU = The role of trade Union/worker representative	0.00	0.17	2.00	0.25	0.00	
SSS = Provision of social security scheme	0.10	1.17	1.86	1.50	1.40	
PEP = Performance evaluation process	0.15	2.00	0.00	0.00	0.80	
HRM outcomes						
RLESS = Staff turnover (annual rate <10%)	0.70	0.83	0.57	0.25	0.80	
CGR = Staff congruence	0.65	0.83	0.29	0.25	0.80	
CMT = Staff commitment	0.75	0.96	0.36	0.50	0.80	
CPT = Staff competency	0.65	0.83	0.64	0.58	1.00	
<i>Ranking on the Best HRM Outcome Cluster</i>	(2)	(1)	(3)	(4)	(1)	
Enterprise performance						
ICRSP = Increasing sales and production	0.70	0.87	0.64	0.50	0.60	
MKTCP = Market competitiveness	0.60	0.83	0.86	0.42	1.00	
EXP = Growth expansion plan	0.75	0.87	0.69	0.50	0.60	
<i>Ranking on the Best Enterprise Performance Cluster</i>	(2)	(1)	(2)	(4)	(3)	
Enterprise Ownership						
SOE = State-owned enterprise	0.00	0.04	0.50	0.08	0.00	
ASE = Affiliated state-owned enterprise	0.15	0.13	0.21	0.42	0.40	
DPE = Domestic Private-owned enterprise	0.65	0.26	0.00	0.08	0.40	
JVE = Joint ventured enterprise	0.00	0.17	0.29	0.17	0.20	
FPE = Foreign Private-owned enterprise	0.00	0.22	0.00	0.00	0.00	
COE = Collectively owned enterprise	0.10	0.13	0.00	0.25	0.00	
TVE = Town and village enterprise	0.10	0.04	0.00	0.00	0.00	
No of Cases	20	23	14	12	5	

Valid N listwise