

Contingent Employment and Organizational Outcome: explicit benefit versus latent cost

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Preface

- The relation between contingent employment and organizational performance has been a disputable topic
- These days, whether the contingent employment contribute to organizational performance has been an emerging topic in Korea.
- In organizational Researches, the empirical result was mixed. we search for the reason why the result was mixed. And we suggest the ambivalence model to explain it.
- Most prior researches are dependent on cross sectional data analysis, but the panel data analysis provides the better estimates of statistical models than cross sectional analysis, resolving the unobserved heterogeneity problems caused by model misspecification. Although our data has some limitations, we used panel data analysis and arrange the findings.
- Reviewing the theoretical link between individual level and organizational level, this study builds the hypotheses explaining the relation between contingent employment and organizational performance

Background : Individual level researches

- Individual level researches explored the relation between distributive/procedural justice and OCBs or the relation between commitment and OCBs.
- Contingent workers/Regular workers are different in the aspect of attitude and behavior toward the organization
- They found that the level of attitude and contribution behavior of contingent worker was lower than that of regular worker, but the relation between attitude and contribution behavior was higher than that of regular worker. Contingent workers are more responsive to the firm's inducement signal.
- Recent researches explored the interaction between contingent and regular workers. The interactions are surfaced to the Task relations/ Social relations.

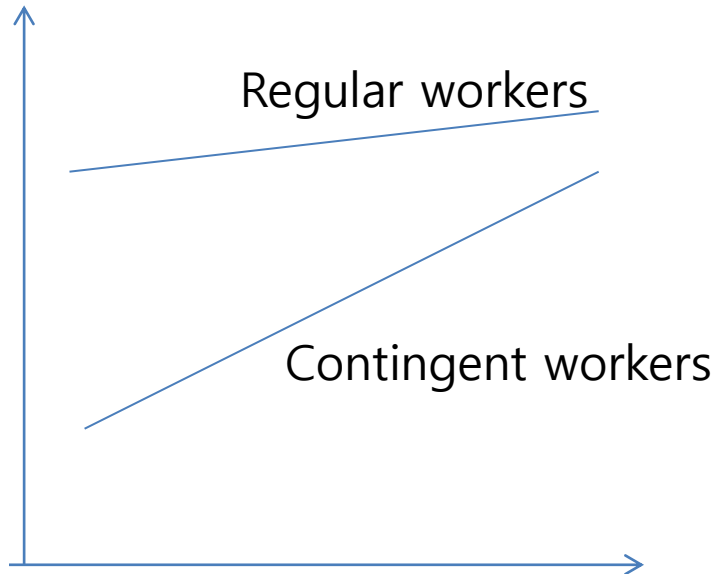
The manager is likely to allocate the simple and independent tasks to the contingent workers, and regular workers have the burden to control it without any rewards. Such task relations have negative effects on the social relations between contingent and regular workers.

Social relations are created positively by sharing common interests when they perceive they are treated fairly. Creating positive social relations contributes to knowledge sharing and mutual learning, leading to good performance. HR provision for contingent work would facilitate the equity perception and desirable social relations between contingent and regular workers.

- It is necessary to connect the individual level analysis to the organization level analysis.

Background : Connection from individual level to organizational level

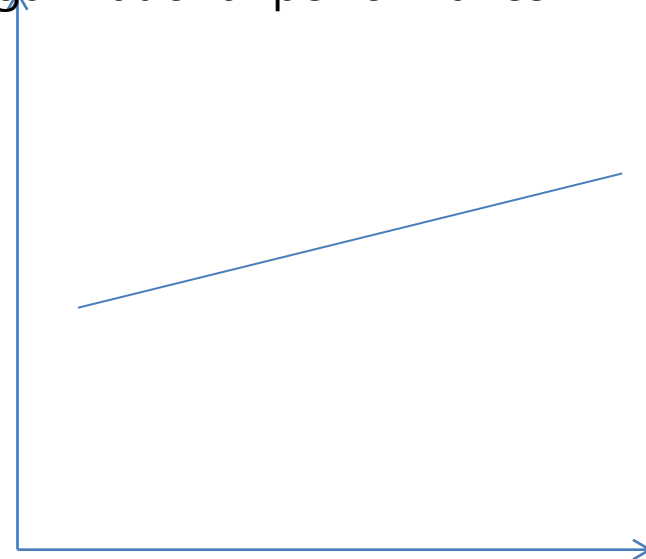
Contribution behavior



Attachment, commitment,
justice perception

(a) Individual level

Organizational performance



Provision of HR practices and
benefits to the contingent
workers.

(b) Organizational level

Background: Organization level researches

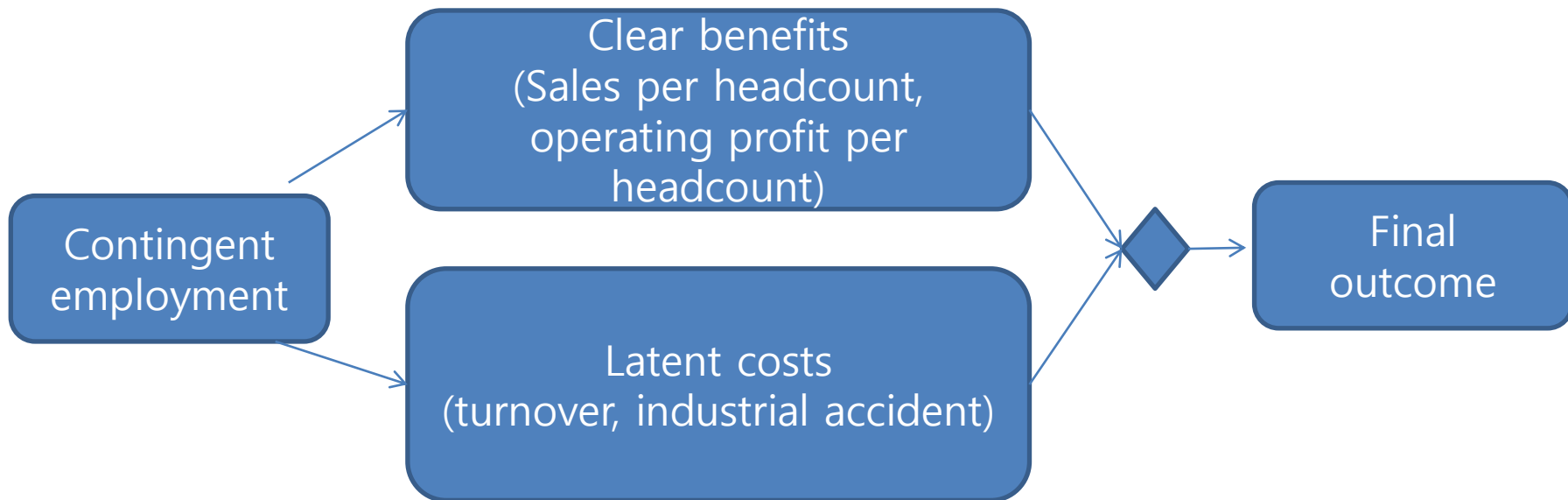
- Prior organizational researches have reported the direct relationship between contingent employment and organizational outcome, but have not clearly remarked the procedure leading to the result.
- The empirical results are mixed.
- Valverde et al. (2000) found that the proportion of temporary workers was positively related with the profit. Lepak et al. (2003) reported that a greater use of knowledge based employment(contract work) was positively related with financial performance. Reca-Puig et al. (2008) reported that contingent employment use was not related with productivity and innovation
- Some Korean scholars reported that use of contingent employment was negatively related with productivity and operating profit (Kwon, 2004; Kim, 2014), and innovation (Lee et al.,2013)

Background: Organization level researches

- Why does these studies show inconsistent results? To explain it, I suggest the ambivalence model of contingent employment. This model is based from Kwon(2004), Pedulla(2013), Allan(2000), drawing upon the rich literature on contingent work.
- The ambivalence model asserts that the use of contingent workers gives the organization some visible benefits coming from cost reduction and labor flexibility, but also invokes latent costs coming from organizational detachment.

Theory: Ambivalence model

Visible and Short term: Financial statement

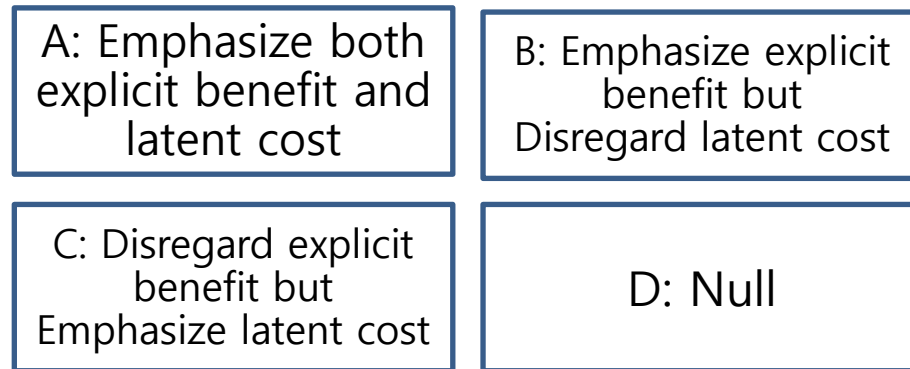


Human Relation: Latent costs may be reflected on the long term financial performance if the firm absorb some of them internally, but some may be transferred to the employee and society

Theory: Ambivalence Model

- The management is likely to pursue explicit and clear performance, and very sensitive to performance reflected on the financial statement. But The firm is likely to disregard the invisible costs like HR outcomes: possibility of employee turnover and industrial accident increase caused by contingent workers. the driving force for using contingent work is the expectation that use of them improve the prompt performance like labor cost and productivity in the short term. These outcomes looks very visible and clear to the eyes of managers pursuing the prompt recovery of cash flow.
- Contingent employment gives the firm explicit performance like labor cost reduction, labor productivity which was reflected on financial statement, but contingent employment lower psychological contracts, organizational attachment of employees, leads to latent costs like turnover, industrial accident. These latent costs look intangible to the eyes of management, and the burdens of them may be transferred to the employee or the society, so latent costs are likely to be underestimated because their effects are not surfaced on the financial statement in the short term.
- Final outcomes are dependent on the offsetting results between explicit benefit (short term) and latent costs (long term). This model can explain why the previous researches have shown the mixed results on the relation between contingent employment use and performance.
- If Underestimated latent costs are well controlled, the final profit would rise. But on the contrary, If latent costs exceed explicit benefit, the final profit would decrease.

Theory: 3 behavior patterns for the use of contingent workers based on ambivalence model

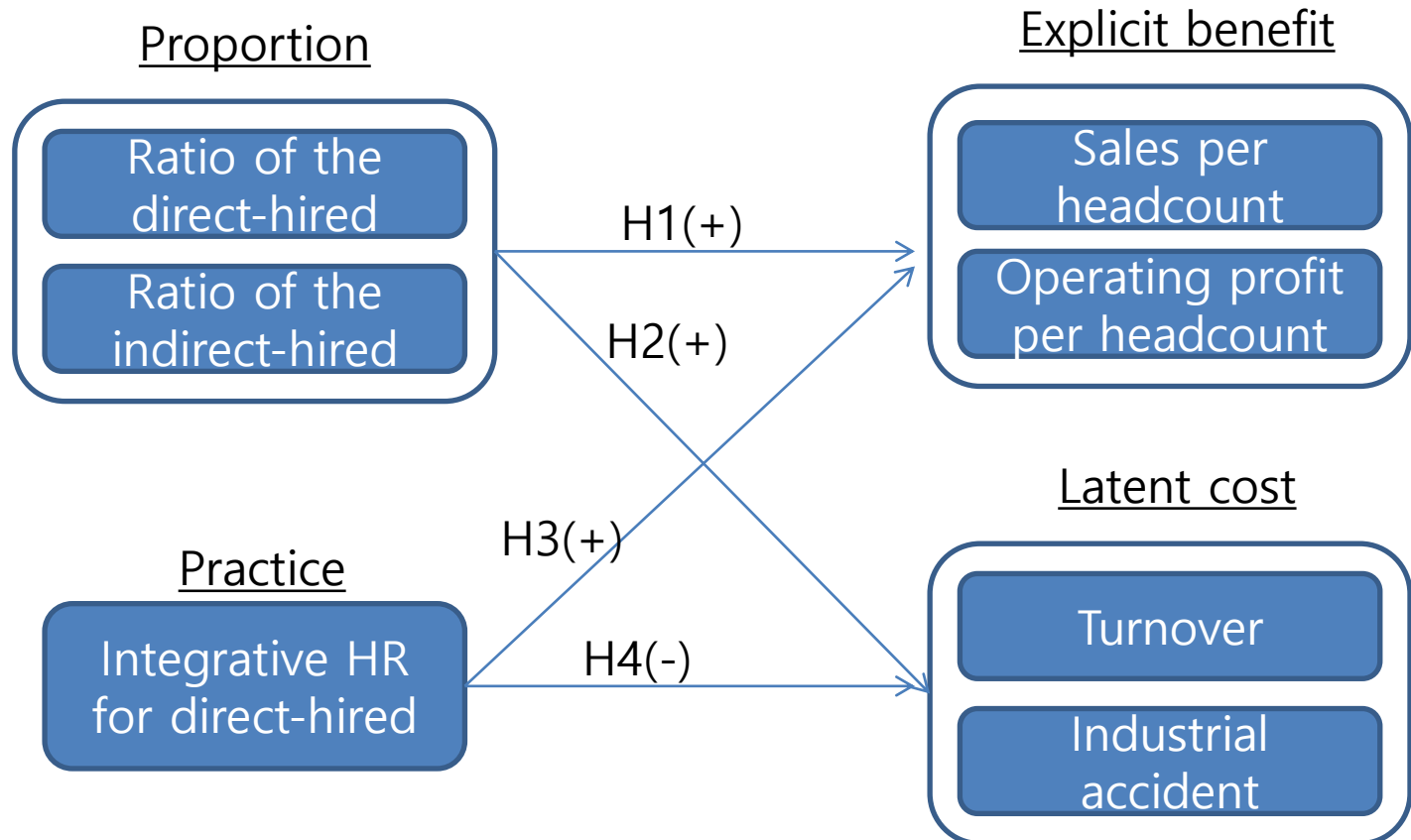


- Based on Behavior theory of the firm, Firm's behavior pattern is divided into 3 categories.
- A: Emphasize both explicit benefits and latent costs -> Firms use contingent workers actively, but they can do HR policies to reduce latent costs. These HRM policies are two streams. First, They are likely to use the indirect hired rather than the direct hired to externalize the latent costs and risks. Or they pursue the integrative HR policies to promote the social relations between workers working side by side to control the latent costs internally, They provide available HR benefits to contingent workers and may facilitate the equity perceptions of the direct- hired and regular workers.
- B: Emphasize explicit benefits and disregard latent costs-> Firms use contingent workers proactively and their activities depend on contingent workers. they do not make any HR effort to improve the equity perception between contingent and regular workers.
- C: Disregard explicit benefit and emphasize latent costs -> Firms do not use contingent employment proactively, Most activities depend on regular workers, They develop functional flexibility through multiskilling education.
- D: Disregard both explicit benefit and latent costs -> Null. In the use of contingent workers. It does not exist in real world.

Research subjects(Hypotheses)

- Contingent worker was classified to direct hired one and indirect hired one. Direct hired contingent worker includes temporary workers and part time worker, indirect hired contingent worker includes subcontract worker and temporary agency worker.
- Subject 1 : Is the effect of contingent employment on financial performance(labor productivity, operational profit ratio) is positive? And do the effects of the direct hired and the indirect hired differ?
- Subject 2: Is The effect of contingent employment on employee turnover, industrial accident positive? And do the effects of the direct hired and the indirect hired differ?
- subject 3: Is the provision of HR Practices and benefits for direct hired contingent worker contribute to financial performance and reduce latent costs?
- In each subject, we examine the differential effects of the direct hired and the indirect hired on the performance

Analytic Model



Methods

- Sample : Korea Labor Institute, workplace panel data, the yearly data of 2005, 2007, 2009, 2011
- Unbalanced panel dataset, including the cases having both the indirect and directed - hired, number of observations= around 900, it relies on each dependent valuable.
- Dependent variable : labor productivity(output per person), operating profit ratio(profit per person), overall turnover, voluntary turnover, occurrence of industrial accidents, employee numbers which are recognized as industrial accidents.
- Control variable : prospector, professional management, commitment HRM, Nurturing HRM, Employee Involvement, Industry dummy
- Independent variable : The ratio of direct hired contingent employment, the ratio of indirect contingent employment, the provision of HRM practices and benefits to direct hired contingent workers.
- Through Hausman test, I used the random effect model. Houseman test gives the criterion whether the data is appropriate to random effect model or fixed effect model.

Variables and measurement

Variables	Measurement
Employment size	Total numbers of employees which includes regular workers and all other direct-hired workers. Overall employment by the organization
Union density	Number of union members / employment size
Ratio of direct contingent employment	(The number of organization hired temporary workers + the number of organization hired part-timers) / employment size
Ratio of indirect contingent employment	(The number of agency hired contingent workers + the number of subcontract workers) / Employment size
Provision of HR practices and benefits	Provision of HR practices and benefits for direct contingent employment was measured as the extent which education, promotion, advancement, severance pay, vacation, national pension, employment insurance, health insurance, industrial insurance were provided for direct contingent employees, each item coded as 1=not at all, 4=provide for all direct contingent employees, and summed together to make an additive measurement.
Turnover ratio	Overall turnover in a year / Employment size
Voluntary turnover ratio	Voluntary turnover in a year / Employment size
Labor productivity	Total output in a year / Employment size, Output a year per employee
Operating profit ratio	Operating profit in a year / Employment size
Industrial accident dummy	Occurrence of industrial accident in a year, measured as 0=nothing, 1=yes
employee numbers of industrial accidents	Recognition numbers are measured as the number of workers who were injured in the workplace in a year and recognized by industrial accident authority.
Professional management system	The extent which ownership and management is separated, measured as 1=managed by corporate owners, 4=managed by professional managers separated from ownership
Prospector strategy	The extent which provides new products and services in the market first rather than competitors, measured as 1= not likely, 4=very likely
High commitment HRM	It is assessed that the most important goal of human resource management in the firm is 1=reduction of labor costs, 4=raising employees' loyalty and commitment to the firm
Nurturing HRM	It is assessed that the firm usually 1= staffs necessary personnel from outside, 4= nurtures necessary personnel inside the firm.
Employee Involvement	About 6 sigma, QC, TQM, Self managed team, rotation, multi-skill training, each was coded as 0=not available, 1= yes, we implement, finally summed to make an additive measurement.
Industry dummy	Dummy variables classified according to the 9 th Korean Industry Standard Classification.

Mean, standard deviation, correlation,(based on pooled panel data)

	mean	s. d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Employment size	3169	16678														
2. Operating profit ratio	270.48	2132.5	.62**													
3. Turnover ratio	.22	.48	-.03	-.02												
4. Voluntary turnover ratio	.17	.33	-.04*	-.02	.70**											
5. Industrial accident dummy	.23	.42	-.04*	-.04*	.006	.005										
6. Recognition numbers of industrial accidents	0.91	5.54	-.002	-.002	-.007	-.016	.035*									
7. Union density	.207	.31	.055*	.051*	-.10*	-.12*	.19**	-.003								
8. Prospector strategy	2.45	.70	.062*	.048*	.0008	-.013	.003	-.010	.008							
9. Professional Management	1.91	1.13	.083*	.07**	-.093**	-.12*	.042*	.028*	.15**	.046*						
10. High commitment HRM	3.46	.90	.039*	.027	-.037**	-.05*	-.007	-.008	.028*	.08**	.15**					
11. Nurturing HRM	3.81	.84	.049*	.029*	-.029*	-.028*	.024	.019	.039*	.069*	.077*	.31**				
12. Employee Involvement	2.68	1.89	.075*	.020	-.066**	-.099**	.14**	.092*	.10**	.091*	.30**	.17**	.17**			
13. Ratio of direct contingent employment	.087	.18	.029	.019	.052*	-.006	.006	.0064	-.09*	.0007	.097*	.0078	-.01	-.021		
14. Ratio of indirect contingent employment	.080	.30	.13**	.088*	-.018	-.030*	.015	.039*	.015	.023	.11**	.0035	.024	.11**	.042*	
15. Provision of HR practices and benefits	32.21	7.58	.059*	.044	-.013	-.017	-.041	.012	.034	.039	.12**	.088*	.059*	.14**	.14**	.026

Results : Financial performance

		Dependent variables	
		Labor productivity	Operating profit ratio
(Intercept)		-5017(2798) †	-391.65(492.39)
Control variables	Union density	1054.98(1713.26)	256.87(453.88)
	Prospector strategy	-92.58(543.80)	-10.09(86.53)
	Professional management	316.92(366.32)	-52.08(64.35)
	High commitment HRM	934.21(416.70)*	139.03(62.04)*
	Nurturing HRM	-1.78(447.70)	-37.66(62.83)
	Employee involvement	55.36(169.59)	-15.10(23.26)
Independent variables	Ratio of direct contingent employment	1909.09(2295.23)	-167.58(416.05)
	Ratio of indirect contingent employment	3106(899)**	244.58(132.72) †
	Provision of HR practices and benefits	90.21(52.30) †	15.67(9.31) †
R square		Within group=0.028 Between groups=0.142 Overall =0.137	Within group=0.041 Between groups=0.037 Overall=0.034
Number of observations and Groups		No. of observations=728 No. of groups=562	No. of observations=726 No. of groups=561
Wald Chi square and significance level		93.37***	27.87

Results : turnover

		Dependent variables	
		Turnover ratio	Voluntary turnover ratio
(intercept)		.34(.06)***	.28(.05)***
Control variables	Union density	-.157(.033)***	-.171(.027)***
	Prospector strategy	-.011(.011)	-.020(.009)*
	Professional management	-.025(.007)**	-.022(.006)*
	High commitment HRM	-.007(.008)	-.0016(.007)
	Nurturing HRM	.004(.010)	.012(.008)
	Employee involvement	-.006(.004)	-.005(.003)
Independent variables	Ratio of direct contingent employment	.21(.043)***	.098(.036)**
	Ratio of indirect contingent employment	-.004(.021)	-.0035(.0176)
	Provision of HR practices and benefits	-.0010(.0010)	-.0011(.0008) †
R square		Within group=0.020 Between groups=0.212 Overall=0.211	Within group=0.035 Between groups=0.187 Overall=0.178
Number of observations and Groups		No. of observations=900 No. of groups=694	No. of observations=900 No. of groups=694
Wald Chi square and significance level		194.41***	163.91***

Results: Industrial accidents

		Dependent variables	
		Industrial accident dummy (Logit analysis)	Recognition numbers of industrial accidents (Tobit analysis)
(intercept)		-2.77(.81)**	-.286(.82)
Control variables	Union density	1.81(.41)***	8.19(1.52)***
	Prospector strategy	.19(.15)	.24(.58)
	Professional management	.022(.091)	-.051(.36)
	High commitment HRM	-.17(.12)	-.93(.45)*
	Nurturing HRM	.16(.14)	.81(.52)
	Employee involvement	.21(.06)***.	.62(.21)**
Independent variables	Ratio of direct contingent employment	.35(.54)	.65(2.10)
	Ratio of indirect contingent employment	.41(.24)*	2.76(.91)**
	Provision of HR practices and benefits	-.0095(.0128)	.018(.051)
R square		-432.47	-920.84
Number of observations and Groups		No. of observations=900 No. of Groups=694	No. of observations=900 No. of Groups=694
Wald Chi square and significance level		42.80**	72.22***

Summary

	Analytical subjects	Results
1. The explicit benefits of contingent employment use	Direct hired contingent employment-> labor productivity	n. s.
	Indirect hired contingent employment-> labor productivity	+, p<0.01
	Direct hired contingent employment-> operational profit ratio	n. s.
2. The latent cost of contingent employment use	Indirect hired contingent employment-> operational profit ratio	+, p<0.1
	Direct hired contingent employment->turnover ratio	+, p<0.001
	Indirect hired contingent employment-> turnover ratio	n. s.
	Direct hired contingent employment-> voluntary turnover ratio	+, p<0.01
	Indirect hired contingent employment-> voluntary turnover ratio	n. s.
	Direct hired contingent employment->occurrence of industrial accidents	n. s.
	Indirect hired contingent employment-> occurrence of industrial accidents	+, p<0.01
	Direct hired contingent employment-> recognition number of industrial accidents	n. s.
3. The effect of the provision of HR practices and benefits	Indirect hired contingent employment-> recognition number of industrial accidents.	+, p<0.001
	Provision of HR practices and benefits -> labor productivity	+, p<0.1
	Provision of HR practices and benefits -> operational profit ratio	+, p<0.1
	Provision of HR practices and benefits -> turnover ratio	n. s.
	Provision of HR practices and benefits -> voluntary turnover ratio	-, p<0.1
	Provision of HR practices and benefits -> occurrence of industrial accidents	n. s.
	Provision of HR practices and benefits -> recognition number of industrial accidents	n. s.

Conclusion

- The results showed the differential effects of the direct hired and the indirect hired
 - > Indirect hired contingent employment has positive effects on financial performance and industrial accidents, this is ambivalent outcome of benefit and latent cost. This Shows the indirect hired is the externalized employment of latent costs and risks.
 - > These effects of indirect contingent employment are different from those of direct contingent employment and more salient in the aspect of ambivalent outcomes caused by employment. The effects of direct contingent employment are confined to the turnover, and the latent costs than explicit benefits stand out, compared to those of indirect contingent employment.
 - > Direct hired one has positive effects on turnover and voluntary turnover. The direct hired may be more easily comparable than indirect hired with regular workers doing jobs side by side. Thus social comparison between the direct hired and regular workers may happen frequently, invoke unfairness and lead to turn over and insignificant financial performance.
- Provision of HR practices and benefits for direct hired contingent employees has positive effects on labor productivity, profit ratio, but negative effects on voluntary turnover, although these effects are a little marginal.
- We cannot strongly assert the effects of HR provision for contingent workers. Whether the shift toward HR Integration may result in more desirable outcomes needs more researches in near future.

Thank you for listening
Questions or Comments?