

Original Research Article

Which is the Better Approach to Accommodate Non-pecuniary Factors in Work Incentive Models: Social Preference or Social Esteem? *

Abstract

This study examines the relevance of different approaches related to non-pecuniary factors by distinguishing positive from negative work attitudes (e.g., effort and shirking). Using survey data, we quantify the relative importance of several human resource management practices. Results show that the social esteem approach, including pride and shame, is more prevalent than the social preference approach, including reciprocity and fairness, with respect to effort. However, the latter approach is as important as the former approach with respect to shirking. These results are robust, irrespective of gender. Distinguishing the context of work incentives, either effort or shirking, is crucially important when discussing the effects of non-pecuniary factors.

JEL Classification: J0; J16; J5

Keywords: Effort; Equity; Work Incentives; Pride; Reciprocity; Shirking

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20 I. Introduction

21 Work incentive is a chief concern of economists because companies can achieve high
22 performance in terms of productivity and profitability through improved work
23 attitudes of employees. Among the numerous studies made of work incentives, the
24 efficiency wage theory is a particularly influential approach (Akerlof, 1982; Akerlof
25 & Yellen, 1990; Shapiro & Stiglitz, 1984). The efficiency wage theory comprises the
26 so-called gift exchange model of Akerlof and the shirking model of Shapiro and
27 Stiglitz. Although their incentive mechanisms differ, they are common in the respect
28 that a higher wage motivates employees to work hard. More recent studies recognize
29 limitations of the pecuniary approach and increasingly emphasize factors beyond
30 material incentives.¹ Two approaches are often used to analyze non-pecuniary
31 factors in behavior agency theory. One is the social preference approach. The other is
32 the social esteem approach. The former has examined how others affect one's
33 behaviors. Examples include reciprocity and fairness (Fehr, Klein, & Schmidt, 2007;
34 Falk, Fehr, & Fischbacher, 2008).² Specifically in the literature, equity is discussed

¹ For example, Dugar (2010) studies nonmonetary sanctions and rewards in a laboratory experiment.

² Strategic reciprocity based on pecuniary incentives (e.g., Akerlof, 1982) is included in the social preference approach, although some define reciprocity as "an in-kind response to beneficial or harmful acts ... even if *no material gain* can be expected (Fehr & Gächeter, 2000, p.160)."

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35 as an important source of reciprocal behavior (Bolton & Ockenfels, 2000; Fehr &
36 Schmidt, 1999). Self-motivation, such as by pride and shame, has particularly been
37 addressed: most people care about how others regard their behavior (Brennan &
38 Pettit, 2004).

39 *The researchers studied*
We study which approach is more relevant to encompass non-pecuniary factors
40 in work incentive models by examining the relative importance of several factors.
41 For this purpose, we reconstruct work incentive arguments comprehensively by the
42 application of findings related to human behaviors in the recent literature to
43 personnel economics. The approaches distinguish positive and negative attitudes
44 towards work. Dohmen et al. (2009) used the approach, where positive and negative
45 reciprocity reflects different personality traits, in their survey research in Germany.
46 We also introduce asymmetric reactions to human resource management practices.
47 The literature shows that people tend to punish harmful behavior more strongly than
48 they reward beneficial behavior (Fehr & Gächter, 2000; Offerman, 2002). Trivial
49 unfavorable treatment might be sufficient to make employees shirk, although decent
50 favorable treatment can be necessary to induce effort. Additionally, our analyses
51 integrate asymmetric reactions with gender differences in bargaining behavior. The
52 literature shows that women are more willing to accept unfair monetary offers than

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53 men are (Eckel & Grossman, 2001; Solnick, 2001). We wonder if a similar
54 phenomenon applies when examining the relations between work incentives and
55 non-pecuniary human resource management practices.

56 The analyses use survey data collected from local employees of multinational
57 companies in Southeast Asia. We use covariance structural analysis in which work
58 incentives are explained by pecuniary and non-pecuniary factors such as equity, job
59 training, relationships with supervisors, company management, social evaluation,
60 and working conditions. In the literature, they are the primary factors affecting work
61 incentives. In our analyses, social evaluation is related to the social esteem approach.
62 Categories aside from job training are related to the social preference approach.

63 Our analyses show the social esteem approach is more prevalent than the social
64 preference approach when discussing effort, although the latter is as important as the
65 former in terms of shirking behaviors. Factors such as social evaluation and job
66 training are revealed to encourage employees more effectively than other factors do.
67 Self-esteem, which can be held up as a result of good social evaluation of companies,
68 affects employee motivation much more strongly than do less visible factors, such as
69 equity. However, the degrees of impact on shirking do not differ among factors
70 compared to those on effort. Additionally, these results are valid, irrespective of

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71 gender. We conclude that the relevance of approaches varies depending on which
72 work attitudes we are investigating.

73 We also confirm that some implications from past laboratory experiments are
74 applicable to the study of work incentives in practical working environments.

75 Employees tend to resist unfavorable treatment more strongly than they reward

76 favorable treatment. The result is consistent with the literature related to asymmetric

77 reactions to favorable and non-favorable treatment. However, our analyses do not

78 show that women are more tolerant of unfavorable non-pecuniary treatment than men

79 are. The degree of impact of protesting unfavorable treatment does not vary between

80 genders. No gender differences are observed in shirking behaviors. Additionally, our

81 analyses reveal that the degree to which some practices motivate employees differs

82 between men and women. Social evaluation accounts for male motivation more

83 importantly than for female motivation, although relationships with supervisors

84 account for female motivation more importantly than for male motivation. These

85 analyses serve as a complement to controlled laboratory experiments because some

86 have questioned whether laboratory results can provide useful practical implications

87 based on unrealistic assumptions (Charness, Frechette, & Kagal, 2004; Fehr &

88 Gächter, 2000; Pereira, N. Silva, & J. Silva, 2006).

89 This paper is organized as follows. Section 2 presents a description of data used
90 for the analyses and introduces the model. Results of the analyses are discussed in
91 Section 3. Section 4 concludes the paper.

92

93 II. Data and model

94 The analyses use survey data collected from employees working for foreign plants of
95 57 Japanese multinational companies in the manufacturing industry. They operate
96 businesses in Malaysia, China, Thailand, Singapore, and Indonesia. All employees
97 working for those plants participated in the survey. Survey questions are related to
98 demographic characteristics, work-related attitudes, and subjective evaluations of
99 human resource management at their respective companies.

100 The survey was administered during 2005-07 using a placement method with a
101 self-administered questionnaire. To safeguard privacy, particularly for inquiries
102 related to shirking, anonymity is guaranteed. The survey questionnaire explicitly
103 announced to respondents that only individual responses would be used for this
104 research and would not be revealed to supervisors or to their companies. Almost all
105 employees responded to this census survey and the response rate did not vary
106 depending on gender. This helped avoid selection bias of sampling for the

107 gender-based study.

108 Our questionnaire is classified into eight categories of questions: two types of
109 work attitudes, equity, social evaluation, job training, relationships with supervisors,
110 company management, and working conditions.

111 We distinguish work attitudes of two types, effort and shirking. Effort and
112 shirking represent employees' overall work attitudes. Effort comprises factors such
113 as willingness to work hard and to take on extra tasks.³ Shirking comprises aversion
114 to work. Previous works distinguish negative reciprocity (Camerer & Thaler, 1995;
115 Roth, Prasnikar, Okuno-Fujiwara, & Zamir, 1991; Slonim & Roth, 1998) and
116 positive reciprocity (Fehr, Kirchsteiger, & Riedl, 1993; Berg, Dickhaut, & McCabe,
117 1995).⁴ Distinguishing positive and negative attitudes towards work enables us to
118 use different model specification under which different factors affect work
119 incentives.

120 Our analyses introduce asymmetric reactions to human resource management
121 practices. Previous studies have shown that people tend to punish harmful behavior
122 more strongly than they reward beneficial behavior (Fehr & Gächter, 2000; Offerman,

³ A similar measure of work effort is used in the literature such as Clark et al. (2010).

⁴ The idea to distinguish negative and positive reciprocity is related to Herzberg's two-factor theory.

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123 2002). Specifically, several laboratory games reveal inequality aversion: people
124 reject unfair offers to penalize their partners even though they end up with lower
125 pay-offs themselves. Applying similar logic to the labor market, we wonder if
126 employees resist working hard under inequitable treatment, although shirking harms
127 the company's business so that they end up with a lower payment.

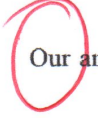
128 In sum, our analyses identify differences in factors that affect effort and shirking,
129 and examine the degree of asymmetric impacts of the factors on work attitudes.

130 Among recent works related to non-pecuniary work incentives, equity often
131 garners special attention because the literature discusses equity as a main source of
132 reciprocal behavior. Specifically, distributional fairness is the primary focus of the
133 economics literature under laboratory games. However, recent research in industrial
134 psychology has devoted more attention to so-called overall fairness, which includes
135 more than distributional fairness because overall fairness is regarded as a proximal
136 driver of human behavior in reality (Lind, 2001). *Equity* described in this paper is
137 analogous to overall fairness, which includes both pecuniary and non-pecuniary
138 factors. It is beyond the idea of distributional fairness used in laboratory games and
139 represents factors affecting whether employees feel that they are fairly treated.

140 Other categories of questions are more straightforward. Social evaluation

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141 represents how a society evaluates the company. Job training comprises factors
142 related to whether the current position provides opportunities for skill development.
143 Relationships with supervisors include factors such as overall feelings and
144 supervision capability. Similarly, company management represents executive
145 managers' attitudes towards employees: whether they care about employee welfare
146 and show respect to employees. Those seven categories encompass non-monetary
147 factors. However, the last category of working conditions includes factors related to
148 monetary compensation such as the level of wages, benefits, and the availability to
149 take leave.

150  Our analyses can be related to behavior agency theory. Social evaluation in our
151 analyses is related to the social esteem approach. The social evaluation term captures
152 employees' feelings about how others regard their work. However, equity is related
153 to the social preference approach. Other categories such as relationships with
154 supervisors, company management, and working conditions are also related to the
155 social preference approach because those factors affect employee attitudes towards
156 work. For example, employees might appreciate better working conditions offered by
157 employers so that they work hard, as the gift exchange model of Akerlof suggests.
158 Nevertheless, it remains unclear how to classify job training. It can be related to the

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159 social preference approach if employees appreciate job training opportunities
160 provided by employers. Otherwise, the social esteem approach is more suitable,
161 specifically if the category captures self-attainment in the sense that employees enjoy
162 skill development. Our analytical method includes both the social esteem approach
163 and the social preference approach, although it has a stronger flavor of the latter
164 approach than the former one.

165 Table 1 presents selected questions used for these analysis. They are prepared by
166 relating previously described literature in economics to the industrial psychology
167 literature (Mowday, Porter, & Steer, 1982; Eisenberger, Armeli, Rexwinkel, Lynch,
168 & Rhodes, 2001). For example, social evaluation is related to the concept of
169 Corporate Social Responsibility. This category includes the factor of whether the
170 company contributes to society and does not conduct socially controversial business
171 activities such as child labor abuse.

172 Table 2 summarizes the sample used for these analyses. The sample size is
173 44,562, eliminating a few observations that had missing variables. In our sample,
174 women are slightly more numerous than men. Women comprise about 60% of
175 respondents. Almost all respondents (about 80%) are permanently employed and
176 only 20% of the sample is temporarily employed. Additionally, nearly 40% of the

177 sample are observations from Thailand.

178 We use covariance structural analysis. Our model explains employees' attitudes
 179 towards work by such factors as equity, social evaluation, job training, relationships
 180 with supervisors, company management, and working conditions. These factors are
 181 latent variables: they are not measured directly. We use observed variables presented
 182 in Table 1 (survey responses) to infer the latent variables. One may want to think that,
 183 for example, an equity variable is derived from three questions as if it were a
 184 compound variable.

185 Our structural equation is expressed as $\mathbf{t} = \mathbf{A}\mathbf{t} + \mathbf{B}\mathbf{h}$, where $\mathbf{t}$ is a vector of
 186 structural variables, $\mathbf{h}$ is a vector of exogenous variables, and $\mathbf{A}$ and $\mathbf{B}$ are matrices of
 187 parameters. Structural variables are unobserved latent variables and observed
 188 variables (i.e., all variables in Table 1). Exogenous variables are equity, social
 189 evaluation, job training, working conditions, and disturbances. The parameters are
 190 estimated using maximum likelihood methods so that the population
 191 variance-covariance matrix, which is a function of the parameters, approximates its
 192 sample variance-covariance matrix.

193 Using covariance structural analysis, our analyses are designed to address factors
 194 beyond the scope of traditional quantitative methods. Factors such as equity and

195 effort are non-observable. It is not easy to apply traditional quantitative methods to
 196 study the current topic. Similar topics are often analyzed by application of ordered
 197 probit models to survey data. Many questions are not used after variable selection
 198 when using each question item as an explanatory variable. Covariance structural
 199 analysis compounds the information of several questions so that we do not waste
 200 collected information. Additionally, we cannot infer the degree of impacts of each
 201 independent variable by comparing estimated coefficients obtained under ordered
 202 probit models. One might wonder if marginal effects measure the magnitude of
 203 coefficients. However, it is necessary to assume the cardinality of Likert scales. The
 204 comparison is straightforward under covariance structural analysis because
 205 standardized path coefficients reveal the degree of impact of each category, which
 206 enables us to evaluate the relative importance of each category.

207

208 III. Results of analyses

209 Table 3 presents the results of the analysis. The first six columns labeled "All"
 210 present the results obtained using the whole sample; other columns present the
 211 results obtained using sub-samples: Columns 7–12 for men, Columns 13–18 for
 212 women. For each latent variable, the first row shows estimated coefficients; the

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213 second row shows standard errors. Standardized coefficients follow beneath from
214 Row 7.

215 The importance of equity was confirmed from the formulation of employees'
216 work attitudes. Column 1 presents results obtained under a benchmark model. The
217 coefficient on equity is estimated as positive, which indicates that employees make
218 extraordinary efforts when they feel equally treated. However, other non-monetary
219 factors are more effective to induce effort. The standardized path coefficient is
220 estimated as 0.14 on social evaluation and 0.27 on job training for each compared to
221 0.04 on equity. Corporate image and job training are revealed to be important in
222 practice. Activities related to corporate social responsibility help not only to promote
223 sales but also to motivate employees through an improved image of a company.
224 Employees are encouraged to work harder if they enjoy working through skill
225 acquisition.

226 The results imply that visible (or direct) gifts are more effective for inducing
227 employees' efforts than invisible (or indirect) gifts are. A different model
228 specification with the terms of working conditions confirms that implication. In
229 Column 3, the standardized path coefficient on working conditions is estimated to be
230 three times as large as that on equity. Working conditions are visible factors such as

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231 level of wages, benefits, and the ability to take leaves.

232 Relations between aspects of equity and work incentives are revealed by
233 comparing results under the benchmark model with those under other specifications.
234 The standardized path coefficient is estimated as 0.02 on equity in Column 3
235 compared to 0.04 in Column 1. The degree of the impact of Column 3 is weaker than
236 that of Column 1 because equity in Column 1 includes more than distributional
237 fairness. Working conditions are a proxy for employees satisfaction related to
238 monetary compensation. Therefore, the effect of equity aside from pecuniary factors
239 remains in Column 3. Additionally, equity judgments turned out to be influenced
240 strongly by relationships with supervisors. The salient implication is related to
241 interactional justice in organizational justice. Employees tend to feel fairly treated
242 under good relationships with supervisors. They are willing to be dedicated under
243 fair treatment. Therefore, the coefficient of equity is not estimated at the statistically
244 significant level once human relationships are included in Column 2.

245 Some implications obtained in the effort case apply to analyses of the shirking
246 case. Columns 4–6 present results of the analysis using shirking as a dependent
247 variable. A benchmark model in Column 4 confirms the importance of equity. The
248 coefficient on equity is estimated as negative. Employees shirk if they do not feel

249 that they are treated equally. Additionally, the degree of the impacts related to equity
 250 is not as large as other non-monetary factors. The standardized path coefficient is
 251 estimated as -0.20 on equity compared to -0.28 on social evaluation and -0.23 on job
 252 training. However, the degrees of impacts do not vary much among the three factors
 253 compared to those in Column 1, where a greater difference is observed. Additionally,
 254 the degree to which employees respond to equity is much larger (in absolute value)
 255 than the estimate in Column 1.

256 These results reveal that employees are more sensitive to equity when discussing
 257 shirking than when discussing effort. In fact, this statement applies not only to equity
 258 but also to almost all other factors in our analyses. We observe asymmetric reactions
 259 towards favorable and unfavorable human resource practices. Employees are more
 260 sensitive to unfavorable treatment. The results suggest the necessity of distinguishing
 261 positive/negative responses (i.e., effort and shirking) when modeling the effects of
 262 human resource management practices on work incentives. Although favorable
 263 treatment helps to motivate employees, the impacts of favorable treatment are not as
 264 great as those of unfavorable treatment on employees' attitudes towards work.
 265 Companies may want to devote more attention to precautionary practices rather than
 266 promotional practices of human resource management. Trivial unfavorable treatment

267 might cost a lot in the sense that enormous favorable treatment is then necessary to
 268 recover the work incentives of discouraged employees. Unfavorable treatment should
 269 be avoided to the greatest extent possible.

270 The remaining implications resemble those in the effort case. Columns 5–6
 271 present results of the analysis obtained under different specifications. The degree of
 272 equity's impacts became smaller in Columns 5–6 than that of the benchmark model
 273 in Column 4.⁵ The standardized path coefficient on supervisors is estimated as -0.20
 274 and the path coefficient on working conditions is estimated as -0.23, compared to
 275 -0.13 on equity (Column 5). Employees shirk if they feel that their supervisors treat
 276 them poorly or if they are not satisfied with monetary compensation. Similarly, the
 277 standardized path coefficient on management is estimated as -0.32 compared to -0.09
 278 on equity (Column 6). Employees are discouraged from working if company
 279 management does not care for them. Again, we confirm that equity in Column 4
 280 captures a broader concept of equity. Equity judgment is emotional and is often
 281 affected by several pecuniary and non-pecuniary factors. For example, employees are
 282 not willing to work hard if their companies do not devote closer attention to them

⁵ Examining goodness of fit measures confirms that the benchmark model in Column 1 (or 4) fits the data better than other specifications. The GFI, 0.89, is close to 0.9, which is a rule of thumb of a good fit. Our AGFI of 0.84 is also close to 0.9, although the value is reduced slightly by adjustment according to the number of parameters.

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283 (Row 12). Although the importance of such intentions is well recognized, it was not
284 straightforward how employees formulate equity judgments in reality. Our analyses
285 identify the degree to which equity's impacts decline after accounting for other
286 factors because the effect of equity, aside from other factors, remains.

287 We further examine the robustness of results by conducting gender-specific
288 analyses (Columns 7–18). The literature presents gender differences in human
289 behavior. Our analyses investigate whether similar gender differences are observed in
290 effort solicitation based on non-pecuniary factors. Rows 15–20 provide test statistics
291 signifying whether coefficients are estimated as equivalent for both genders. We
292 interpret that the respective degrees of impacts are not equal if the test statistic is
293 greater than 1.96 (i.e. statistically significant at the 5% level).

294 Our analyses show no difference in impacts of equity between men and women.
295 However, the impacts of other factors such as social evaluation, job training, and
296 relationships with supervisors are shown to differ between men and women when
297 discussing positive responses. The social evaluation of companies is more important
298 to motivate male employees than female employees, although job training is more
299 effective to motivate female employees than male employees. The role of pride
300 turned out to be more important for men than women. Our results confirm the

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301 common belief that men are creatures of pride. Although the results of job training
302 might not be readily apparent, a possible interpretation is that women appreciate
303 opportunities for skill acquisition in a men-oriented society. Human resource
304 strategies might want to be customized towards each gender because the degree of
305 effectiveness varies between genders.

306 Another feature is the lack of gender differences in discussing negative
307 responses. The degree of impacts of protesting unfavorable treatment does not
308 change irrespective of gender. For example, the standardized path coefficient on
309 social evaluation is estimated as -0.29 (Column 10, Row 8) for men compared to
310 -0.28 (Column 16, Row 8) for women. Similarly, the standardized path coefficient on
311 job training is estimated as -0.22 (Column 10, Row 9) for men compared to -0.23
312 (Column 16, Row 9) for women. No differences exist in the respective degrees of
313 impacts because the test statistic is less than 1.96

314 In sum, factors motivating male employees differ from those motivating female
315 employees, but factors discouraging employees are common, irrespective of gender.
316 Additionally, neither gender is more emotional than the other in the sense that the
317 degree of impacts of protesting unfavorable treatment does not vary.

318 We close this section by relating our analyses to behavior agent theory. A salient

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319 implication of our results is that the social esteem approach is more prevalent than
320 the social preference approach when discussing effort, but the latter is as important as
321 the former when discussing shirking. In the effort columns of Table 3, the
322 standardized path coefficients of social evaluation in Row 8 are larger than those of
323 equity in Row 7, relationships with supervisors in Row 10, and company
324 management in Row 12 for each. However, they show similar values in columns of
325 shirking. These results imply that the relevance of either approach varies depending
326 on the work attitudes: effort or shirking.

327

328 V. Conclusion

329 Evidence from survey analyses and experimental economics challenges traditional
330 economics, where pecuniary factors play a primary role in raising work incentives.
331 Increasingly, attention is devoted to non-pecuniary factors in the study of work
332 incentives. One example is reciprocity and fairness in the choice of effort.
333 Self-esteem is another example.

334 This paper presents a study addressing which approach is relevant to discuss
335 non-pecuniary factors by distinguishing positive and negative work attitudes (e.g.,
336 effort and shirking). Non-pecuniary factors are often analyzed under the social

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337 preference approach such as reciprocity and fairness and the social esteem approach
338 such as pride and shame. We attempt to study work incentives comprehensively
339 using a model with three key categories: equity, which is related to social preference
340 approach; social evaluation, which is related to the social esteem approach; and job
341 training, which is unclassified. The analyses quantify the relative importance of these
342 human resource management practices.

343 Our results imply that the social esteem approach is more prevalent than the
344 social preference approach when discussing effort. Although the importance of
345 equity was confirmed, other practices such as social evaluation and job training are
346 apparently more effective to motivate employees. On the other hand, the social
347 preference approach is as important as the social esteem approach when discussing
348 shirking. The degree of impact on shirking does not differ much among factors ✓
349 compared to the case of effort. It is not fruitful to discuss which approach is superior
350 because results exhibit the importance of both approaches. It is more practical to ✓
351 distinguish the context of work incentives, either effort or shirking, when discussing
352 the effects of non-pecuniary factors.

353 We also examine the interaction between equity and other factors categorized in
354 the social preference approach. Our analyses reveal the complicated nature of equity

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355 judgments. The degree of equity's impacts becomes smaller once we account for
356 other factors because the effect of equity aside from those factors remains.

357 Furthermore, we study non-pecuniary work incentives by particularly addressing
358 gender differences. This study examines whether non-pecuniary factors play a
359 different role in motivating male and female workers. We observed gender
360 differences in factors inducing effort. The role of pride, which can be captured by the
361 social evaluation of companies, is more important for motivating men than women.

362 On the other hand, we observed no gender differences in terms of factors
363 discouraging employees. The degree to which human resource management practices
364 discourage employees was revealed to be similar for men and women.

365 One motivation to conduct this study was to examine whether behavioral
366 implications obtained in past laboratory experiments are actually applicable to work
367 incentives. Results show that some behavioral implications of laboratory experiments
368 are applicable to work incentives in practical working environments. Employees tend
369 to resist unfavorable treatment more strongly than they reward favorable treatment.
370 However, women are not necessarily more tolerant than men. No gender differences
371 are observed for the degree of impacts of protesting unfavorable treatment.

372 Additional efforts are underway to develop a new framework of economics

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373 incorporating non-monetary factors and heterogeneous demographic characteristics,

374 including gender differences. We hope these analyses will provide step toward

375 further development in this field.

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Very good overall article.

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376 **Table 1 Selected questions used for analyses⁶**

377

378	1. Effort	* I work ahead even though my supervisors do not demand it.
379		* I try to work more than assigned.
380	2. Shirking	* I sometimes slow down on my work.
381		* I sometimes avoid working.
382		* I have lost enthusiasm for my work.
383	3. Equity	* The company evaluates me fairly based on my performance.
384		* The evaluation standards of human resource management are fair.
385		* My work is evaluated properly.
386	4. Social evaluation	
387		** I am satisfied with the social evaluation of the company.
388		** I am satisfied with the social evaluation of my work.
389		* My company makes contributions to society.
390		* I am proud of informing others that I work for this company.
391	5. Job training	* I can learn new skills and develop my ability through my work.
392		* The management helps to develop the workers' abilities.
393		* Supervisors and/or seniors are willing to train subordinates.
394		* The company arranged effective job-training courses within a year.
395	6. Relationships with supervisors	
396		** I am satisfied with the leadership of my supervisor.
397		** I have a good relationship with my supervisor.
398	7. Working conditions	
399		** I am satisfied with the welfare system of the company/factory.
400		** I am satisfied with the number of holidays and working hours.
401		** I am satisfied with the level of my salary/wage.
402		** I am satisfied with the opportunities for promotion.
403	8. Company management	
404		* The management show respect to workers.
405		* The management appreciates workers' hard work.
406		* The management cares about workers' welfare.
407		

Only 2 questions?

⁶ * Multiple choice answers are 1. I don't think (or feel) so.; 2. I somewhat don't think (or feel) so.; 3. Cannot say; 4. I somewhat think (or feel) so.; 5: I think (or feel) so.

** Multiple choice answers are 1. Dissatisfied; 2. Somewhat dissatisfied; 3. Cannot say; 4. Somewhat satisfied; 5. Satisfied.

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408 **Table 2 Summary Statistics**

409

		Male	Female			
Gender		42.4	57.6			
		Permanent	Temporary			
Permanent/Temporary		80.6	19.4			
		Yes	No			
Experiences to change jobs		53.9	46.1			
		Malaysia	Singapore	Indonesia	China	Thailand
Areas		26.3	1.8	0.9	29.0	42.0
		1	2	3	4	5
1. Effort						
	work ahead	8.9	8.3	26.9	21.6	34.3
	work more	12.8	8.9	20.7	27.0	30.5
2. Shirking						
	slow down	33.1	17.2	20.2	16.6	12.9
	avoid working	24.9	13.7	20.0	18.7	22.7
	lost enthusiasm	44.7	17.7	18.8	9.7	9.1
3. Equity						
	performance	19.0	20.5	24.0	21.2	15.3
	evaluation standards	22.3	19.9	25.8	19.4	12.5
	work evaluation	18.8	19.1	27.9	21.6	12.6
4. Social evaluation						
	company	6.0	7.8	34.9	33.2	18.0
	work	6.8	9.0	39.3	29.7	15.3
	contributions	7.2	7.8	22.3	27.1	35.6
	proud	7.4	6.9	16.4	25.1	44.3
5. Job training						
	learn	10.6	12.0	22.0	28.4	27.0
	management	9.1	10.1	22.6	27.0	31.2
	supervisors	8.3	12.4	24.1	29.7	25.5
	courses	19.7	15.2	23.2	22.4	19.5
6. Supervisors						
	leadership	12.4	14.2	22.9	30.3	20.2
	relationships	7.0	10.9	30.0	32.0	20.1
7. Working conditions						
	welfare system	18.9	17.9	20.2	27.8	15.1
	holidays/ working hours	14.8	14.1	19.1	29.2	22.9
	salary	32.6	25.7	18.0	16.2	7.5
	promotion	17.0	13.7	46.5	14.5	8.3
8. Company management						
	respect	14.9	14.1	26.2	26.0	18.7
	appreciation	15.5	16.0	25.7	24.5	18.3
	cares	15.8	15.2	25.1	25.2	18.7
Sample size		44,562				

410

unit: frequency (%)

411 Table 3 Results of Analyses

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]
	All	Effort	Effort	Shirking	Shirking	Shirking	Effort	Effort	Effort	Shirking	Shirking	Shirking	Effort	Effort	
[1] Equity	0.03*	0.01	0.01**	-0.10*	-0.06*	-0.04*	0.02**	0.00	0.01	-0.10*	-0.07*	-0.04*	0.03*	0.01	0.
Standard errors	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
[2] Social evaluation	0.24*	0.20*	0.20*	-0.28*	-0.20*	-0.20*	0.30*	0.25*	0.28*	-0.29*	-0.22*	-0.21*	0.23*	0.19*	
Standard errors	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	
[3] Job training	0.28*	0.25*	0.27*	-0.14*			0.25*	0.21*	0.24*	-0.13*			0.30*	0.28*	
Standard errors	0.01	0.01	0.01	0.01			0.01	0.01	0.01	0.01			0.01	0.01	
[4] Supervisors		0.07*			-0.10*	-0.09*		0.06*			-0.11*	-0.09*		0.04*	
Standard errors		0.01			0.00	0.00		0.01			0.01	0.01		0.01	
[5] Working conditions			0.05*		-0.11*				0.02**		-0.09*				
Standard errors			0.01		0.00				0.01		0.01				
[6] Management						-0.17*						-0.17*			
Standard errors						0.01						0.01			
Standardized coefficients															
[7] Equity	0.04*	0.01	0.02**	-0.20*	-0.13*	-0.09*	0.02**	0.00	0.02	-0.20*	-0.14*	-0.09*	0.04*	0.02	0.
[8] Social evaluation	0.14*	0.12*	0.12*	-0.28*	-0.20*	-0.21*	0.19*	0.16*	0.17*	-0.29*	-0.22*	-0.21*	0.14*	0.12*	
[9] Job training	0.27*	0.24*	0.27*	-0.23*			0.26*	0.22*	0.25*	-0.22*			0.30*	0.28*	
[10] Supervisors		0.11*			-0.20*	-0.17*		0.11*			-0.20*	-0.17*		0.08*	
[11] Working conditions			0.06*		-0.23*				0.03**		-0.18*				
[12] Management						-0.32*						-0.31*			
[13] GFI	0.89	0.85	0.83	0.89	0.83	0.84	0.89	0.83	0.85	0.89	0.83	0.83	0.89	0.85	
[14] AGFI	0.84	0.79	0.78	0.85	0.77	0.77	0.85	0.78	0.79	0.86	0.77	0.78	0.85	0.80	
* statistically significant at the 0.1 level; ** at the 3% level; *** at the 1% level															
The first six columns labeled "All" present the results obtained using the whole sample; other columns present the results obtained using sub-samples: columns 7–12. For each latent variable, the first row shows estimated coefficients; the second row shows standard errors. Standardized coefficients follow beneath from row 7.															
GFI is similar to R-squared in regression analysis. Ranging between 0 and 1, GFI takes a value of one if the model fits the data perfectly. AGFI is comparable to adjusted R-squared because the value of GFI increases with the number of parameters.															
Gender differences in coefficients															
[15] Equity							0.73	1.04	0.27	0.17	2.22*	0.42			
[16] Social evaluation							-2.75*	-2.21*	-3.11*	0.90	1.44	0.17			
[17] Job training							3.04*	3.79*	2.97*	-0.38					
[18] Supervisors								-3.19*			1.58	0.96			
[19] Working conditions									1.15		-4.39*				
[20] Management												-0.74			
* statistically significant at the 5% level															

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