

A study on motivating employees' learning commitment in the post-downsizing era: Job satisfaction perspective

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Abstract

From the resource-based perspective, organization learning is the foundation of firms creating their special resources and thereby increasing their competitive advantage. Organization learning is indeed derived from individual learning within the organization. However, many firms have adopted downsizing strategies to reduce the redundancy. Nevertheless, it had a great impact both on laid-off employees and remaining ones. The remaining employees lost their trust, loyalty toward the firm and eventually left. The consequence not only affected the firms' daily operation but also impacted employees' learning motivation for improving their ability to enhance the firm's competitive advantage. In the post-downsizing era, applying appropriate human resource management practices to motivate employees would be a critical issue. The study began with two psychological constructs: job satisfaction and learning commitment to explore the content of job satisfaction which significantly influenced remaining employees' learning commitment. The study used both qualitative and quantitative methods to collect and analyze the data. The results revealed that the two criterion in job satisfaction "the relationship with colleagues" and "the relationship with the family" significantly influenced employees' learning commitment. However, this was clearly different from managers' subjective expectation. The findings provide important implications for both the research field and practical management of downsizing, employee motivation, cross-culture management and strategic HRM practices.

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1. Introduction

Since the 1980s, downsizing has been one of the unchangeable trends among firms all over the world

(Cascio, 1993, 2002; Cascio, Young, & Morris, 1997; Fisher & White, 2000; Landry, 2004; Mckee-Ryan & Kinicki, 2002; Naumann, Bies, & Martin, 1995). From the resource-based view, especially in the era of the knowledge economy, firms employed downsizing strategies to reduce redundancy and selectively maintain the best labor. They still had to improve the quality of remaining employees and urge them to learn new skills which revitalized the organization and eventually promoted the firms' competitive advantages (Cascio, 2002; Howard, 2002). This was because organization

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learning was the basis of firms' strategic process and future competitive advantages (Vera & Crossan, 2004). Furthermore, the learning attitude of the individual within organizations was also the foundation of organization learning (Crossan, Lane, & White, 1999; Senge, 2003). Some longitudinal investigations revealed that many downsized firms did not achieve the original goals and failed to form the desired competitive advantages. Instead of cutting costs, gaining profits, promoting productivity and increasing stock price, they suffered from low employee morale, less employee commitments, and lack of loyalty. This ended up affecting the people-related business activities such as quality and customer services (Cameron, 1994; Cascio, 1993, 2002; Chadwick, Hunter, & Walston, 2004; Howard, 2002; Rigby, 2002).

Downsizing was a particular kind of action which went against employees' psychological contract (Millward & Brewerton, 2002). Downsizing harmed employees and their families psychologically, economically and even physically. It also caused social instability and other problems (Naumann, 1998; Naumann et al., 1995; Mckee-Ryan & Kinicki, 2002; Sun, 1994). In the downsizing and post-downsizing era, some HRM practices in coordination with downsizing strategies influenced the remaining employees (survivors) greatly, e.g. greater workload, increased pressure and destruction of the original relationship network. All the negative impacts affected their job satisfaction, commitment toward the organization and performance (Mckinley, Sanchez, & Schick, 1995). Since the remaining employees had lost their trust and loyalty toward the firms and might eventually leave the firms; by all means, they were reluctant to learn further in order to improve their skill base. Therefore, in the post-downsizing era, for the purpose of strengthening a firm's competitive advantage, those downsized firms should design HRM practices to motivate the remaining employees to learn new core competencies to leverage overall workforce performance (e.g. productivity) and eventually improve the firms' financial performance (Delery & Shaw, 2001).

In the literature, quite a few articles have explored the downsizing strategies applied by firms since 1980s. The main category included the rationale behind downsizing, the types of downsizing, the consequences and the key factors of success (Cameron, 1994; Cascio, 1993, 2002; Cascio et al., 1997; Freeman & Cameron, 1993; Greenhalgh, Lawrence, & Sutton, 1988; McKinley, 2001; McKinley et al., 1995). Accompanying the research were some studies on how HR practices affected organization's performance after downsizing

(Chadwick et al., 2004). A lot of research examined the remaining employees' job satisfaction, organization commitment and their trust in the firms during the post-downsizing era (Brockner, 1988, 1990; Brockner et al., 1993; McKinley et al., 1995; Mone, 1997; Shah, 2000; Sun, 1997). Some research explored how the change in the social network influenced the firms' performance and the remaining employees from the social network perspective (Cascio, 2002; Fisher & White, 2000). Some studies aimed to find out how firms rebuilt a positive organizational climate after downsizing (McMaster, 2002) and to discuss how the remaining employees continued their career within the firms (Beam, 1997). According to Cascio (1993), Cascio (2002), Cameron (1994), Naumann et al. (1995), Sun and Yeh (1996), and Chadwick et al. (2004), keys to successful downsizing were firms' continual improvement in their performance and the attention paid to the remaining employees (making them feel taken care of by the employers). Chadwick et al. also found that downsizing firms which applied employee-caring HRM practices would positively affect the organization performance in the post-downsizing era. These revealed that it was important to take care of the remaining employees and most importantly to ensure that they appreciated what the firms have done for them. Employees' job satisfaction (representing their overall emotional attachments to the firms) and organization commitments were frequently being used as the predictors of employees' organizational behaviors (Maierhofer, Kabanoff, & Griffin, 2002; Mitchell & Lee, 2001).

At present, neither how downsized firms developed their HRM practices for motivating employees to learn nor the relationship between levels of job satisfaction and organization commitment in the context of downsizing have been discussed. Moreover, learning commitment has not yet been covered in the organizational commitment. We assume that the earlier research could be the basis for exploring the remaining employees' expectations and needs for learning and further to design appropriate HRM practices to motivate them to learn. Therefore, we focused on the post-downsized remaining employees' job satisfaction to explore the facts that significantly influenced their learning commitment.

This research aimed to investigate employees' learning from the viewpoint of employees' psychological constructs in the post-downsizing era. The findings would contribute to scholarly research on organizational changes, organizational learning and strategic human resource management practices. Additionally, they

would provide concrete reference values to the practical human resource management practice after downsizing.

2. Literature review

This research targeted to investigate employees' learning from the viewpoint of employees' psychological constructs in the post-downsizing era, and expected that the findings could be the important reference when designing HRM practices. Therefore, we reviewed the literature regarding downsizing, HRM practice, organizational learning and two employees' psychological constructs, job satisfaction and learning commitment.

2.1. Downsizing, HRM practices, and organizational learning

2.1.1. Downsizing

Many researchers have tried to define downsizing in slightly different ways. Here we define it as follows. In order to cope with environmental changes, break through management difficulties and improve organizational efficiency, a firm takes certain actions to promote its competency and productivity. Some of the most commonly used actions are reducing costs, reorganizing and laying off employees. Among these, workforce reduction is a major and last resort.

Downsizing has been widely accepted as an effective means to reorganize and to promote efficiency in both private and public organizations. Previously, downsizing was viewed as an indicator revealing the decline of a firm, now it was treated as a justifiable strategy (McKinley et al., 1995). It has even been implemented by some high-performance firms, e.g. Kodak, Citicorp, International Paper, Levi Strauss (Ellis, 1998). According to Shah (2000), many firms conducted downsizing to maintain competitive advantages and upgrade technology levels, not necessarily because of organizational decline. In addition, globalization and merger/acquisition to reach an optimal economy of scale could also lead to the actions of downsizing (Hirschman, 2001; Tsai, 2001). Whether downsizing was defined as a reactive or proactive action (Cameron, 1994); it has surely become a commonly used strategy (Cascio, 2002; Fisher & White, 2000; Howard, 2002) that a firm took to reduce the numbers of its employees and to cut down costs (Cameron, 1994; McKinley et al., 1995). In short, downsizing was the action taken by firms to strategically reduce redundant workforce, improve the quality of human capital and eventually maintain and increase their competitive advantages.

Surprisingly, downsizing did not necessarily add value or enhance productivity for a firm (Cameron, 1994; Cascio, 1993, 2002; Fisher & White, 2000; Howard, 2002; Landry, 2004). As a matter of fact, downsizing has proved unable to boost a firm's stock prices and even had a negative impact on the firm (Rigby, 2002). Both an aggressive and even a moderate downsizing strategy greatly affected and harmed employees (Greenhalgh et al., 1988). The harm caused by downsizing was not only in creating unemployment, but also on the lives of employees' families (Sun, 1994). Downsizing has influenced employees economically, physically, socially and psychologically (Baron & Kreps, 1999; Mckee-Ryan & Kinicki, 2002; Naumann et al., 1995). It also had great impact on employees' families (Sun, 1994). The remaining employees were victims in some ways: they were more uncertain and had lower morale; they lost trust; they were suspicious of the management; they perceived lower job satisfaction, lower organizational commitment and anxiety for the future (job insecurity). These negative effects were summarized as the "survivor's syndrome", which could cause physical discomfort, gradually reduce creativity, increase fatigue and anger and lead to extreme avoidance of risks. The effects on their behavior included absenteeism and poorer personal relationships (Brockner, 1988; Gomez-Meijia, Balkin, & Cardy, 1998; McKinley et al., 1995; Mishra, 1998). Rousseau (1995) concluded that the violation of the psychological contract caused all the negative phenomena. Additionally, from the perspective of the social network, losing colleagues and friends at work influenced the remaining employees' attitudes and behaviors. They tended to become dissatisfied and reduce their commitment to the organization and performance and end up resigning (McKinley et al., 1995; Shah, 2000). All of these negative impacts should impede both individual and organizational innovation, learning (Amabile, 1999; Cascio, 2002; Fisher & White, 2000; Shah, 2000). This was disadvantageous for firms in the knowledge-creating process.

2.1.2. HRM practices and organizational learning

The main proposition of SHRM advocated that HRM practices would affect firm performance (Chadwick et al., 2004; Delery & Shaw, 2001; Wright & McMahan, 1992; Wright & Snell, 1998). Quite a few studies suggested that there remained some unknown between HRM practices and actual financial performance. Wright, Dunford, and Snell (2001) summarized SHRM and the strategic literature from the resource-based perspective. They proposed a

relationship model between HRM practices and firms competitive advantages. Organizational learning and innovation were the key parts of in this model, because HRM practices depended on learning to interact with intellectual capital and strategic capabilities. Through the process, firms could create valuable, rare, inimitable and organized resources. Therefore, organizational learning was the strategic process and the base for future development of competitive advantages (Vera & Crossan, 2004). Further, the learning of the individuals was the base of organizational learning (Crossan et al., 1999; Kim, 1993). Senge (1990) also suggested that the base of a learning organization was individual personal mastery. Senge (2003) restated that organizational learning referred to the personal willingness to change. Since personal and organizational learning were so important to firms' competitive advantages and employees' personal learning was the base of organizational learning, therefore, firms should design feasible HRM practices to motive employees to learn in order to enhance competitive advantages, especially for firms that had gone through downsizing.

2.2. Job satisfaction

Hoppock initially proposed the concept of job satisfaction in 1935. He considered that job satisfaction was composed of what was felt in the working environment and what satisfied the employees both physically and psychologically. These factors were employees' subjective reactions toward their working environment. Many different definitions were made subsequently, for example, some definitions focus on the job itself, while others included all the job-related factors. Some researchers have defined satisfaction as positive feelings or aggressive responses; whereas others defined it as the gap between expected gain and the actual gain. Cribbin (1972) proposed a more general definition: job satisfaction was a totality of feelings regarding the working environment, which included the work itself, supervisors, working groups, organizations, even family life. Seal and Knight (1988) conceptualized satisfaction from a psychological viewpoint: job satisfaction meant the overall emotional or evaluation responses from the employees to the job itself. It was an affective response (Maierhofer et al., 2002). It could predict employees' organizational behaviors, for example, their intention to quit (Mitchell & Lee, 2001). In sum, we defined job satisfaction as the difference of job satisfaction level between the expected and actual situations. The

influencing factors included organizational environments, safety, compensation, promotion, life and self-esteem. It strongly influenced the employees' organizational behaviors.

The measurement of job satisfaction originated with the most basic aspect of the job itself, the compensation (Smith, Kendall, & Hulin, 1969), and it gradually developed into a multi-dimensional measurement. The Minnesota Satisfaction Questionnaire developed by Weiss, Davids, England, and Lofquist (1967) focused on four major elements; they were the job itself, personal relationships in the workplace, compensation and promotion. Practically speaking, the earlier mentioned categories are not adequate for measuring the practical purposes of firms. Hence, 13 elements were classified to measure the constructs in many famous companies. These elements were as follows. (1) Salary and benefits: the total compensation package gained after comparing with other people and the tasks required by the job. It also included the satisfaction gained from the benefit programs. (2) The nature of work and pressure: satisfaction and pressure of work, work time, decision-making power and accomplishments. (3) Career development: satisfaction level with individual career development. (4) Education and training: satisfaction level with firm's investment in education and training. (5) Management style from immediate managers: satisfaction level with management style and the superiors themselves. (6) Safety and environmental protection: satisfaction level at the physical working environment provided by the firm, including ventilation, lighting, safety and environmental protection. (7) Performance evaluation systems: satisfaction level with the fairness and accuracy when performance is being assessed. (8) In-firm promotional channels: satisfaction level with the rules and time frame of being promoted. (9) Discipline management: satisfaction level with the discipline practices. (10) The overall working environment: satisfaction level with the working environment, such as geographical location, communication system, image of the firm, management styles, etc. (11) Department environment: satisfaction level with comparisons of the employee's department with other departments. (12) Support from the firm to personal well-being and the family life. (13) Personal relationships with colleagues. These elements can be used to measure employees' perception of job satisfaction and further discover the factors which would greatly motivate employees to learn. The findings would then be the foundation for designing HRM practices.

2.3. Learning commitment

Organizational commitment was the employee's attitudes toward the organization; it was the sum of recognition and response to work (Millward & Brewerton, 2002). Researchers have proposed that organizational commitment would benefit firms. Morris and Sherman (1981) showed that organizational commitment could not only predict turnover behaviors, but also employees' performance. Meyer, Bobocel, and Allen (1991) defined organizational commitment as (1) affective commitment, where employees psychologically and emotionally recognized and appreciated their relationship with the organization; (2) normative commitment, where employees believed that being loyal and committed to the organization was a necessary virtue; (3) continuance commitment, where employees remained in one firm due to the utilitarian benefits (Meyer, Allen, and Smith, 1993). Until now, learning commitment has not been covered together with organizational commitment. In the knowledge management field, the factors related to the human and social aspect have not been given much consideration (Hislop, 2003). Hence, very little literature concerning learning commitment was found. However, employees' learning commitment and willingness to learn new knowledge and skills has been a vital force in maintaining corporate competitive advantages in this knowledge economic era. Therefore, in this paper, we treated it as a factor similar to organizational commitment.

From above literature review, all discussed variables were related to each other. However, neither how downsized firms developed their HRM practices for motivating employees to learn nor the relationships between job satisfaction and organization commitment in the context of downsizing have been the main focus in the previous research. Besides, learning commitment has not yet been discussed previously. Therefore, we proposed that the earlier research could be the basis for exploring the remaining employees' needs for promoting their learning commitment and be useful for designing appropriate HRM practices to improve the firms' performance.

3. Methodology

This research applied both quantitative and qualitative methods. We used questionnaire surveys to perform the quantitative study, and used interviews and supplementary documents investigation to carry out the qualitative study. We then compared the results from

these two methods to check the consistency. The whole process of data collection lasted for over 2 years.

3.1. Sample case

The research was exploratory and a case study method was employed to collect data. In order to prevent the intervening factors from affecting management styles and the intervening effects caused by organization sizes, cultural policies and various HR practices, the sample came from the same organizational background. Therefore, employees from seven manufacturing factories of a Taiwan and foreign-invested petrochemical company were enrolled as subjects.

The firm had enjoyed its prestigious reputation in performance, employees' welfare and corporate image for over 20 years. The firm had always been ranked among the top 10 foreign-invested firms and top 50 among the 1000 manufacturers in Taiwan. Owing to the rapid changes in technology and market, it had initiated corporate reengineering since 1997. Moreover, it had started organizational downsizing on a larger scale; it had cut 30% of its employees in total as of 2003. Although the firm had tried to be lawful in the downsizing process and gave consideration to employees' esteem, from the results of similar research, downsizing still caused negative effects on the remaining employees. Thereupon, many employees had gradually decided to retire early or to resign. Quite a few of them were the ones with firm-specific core competencies and excellent performance. The firm noticed that the constant loss of the manpower with core competencies would have a negative impact on routine business operation, learning and innovation. In view of the difficulties in creating technology and the rapid changes in markets and technology, firms have to design and implement appropriate HRM practices to motivate employees to learn.

3.2. Quantitative study

3.2.1. Questionnaire design and measurement

The research used a questionnaire survey as the main tool to collect mass data. There were two parts to the questionnaire: job satisfaction and learning commitment. Likert's five-point scale was employed to measure the variables. The possible answers were very satisfied, satisfied, no difference, dissatisfied and very dissatisfied. The following were the detailed explanations regarding the source of the questionnaire, construct validity and the reliability of the variables.

3.2.2. Job satisfaction

The questionnaire comprised 87 questions. The content of the questionnaire was adopted from the employee satisfaction survey of GE and the Wang Computer. It had been altered several times by the professors and students of National Sun Yat-Sen University. The questionnaire used in this research was the version altered in 1998 by Tsai and Huang. Some HRM professors and HR managers also evaluated the content validity.

There were 13 dimensions to the original questionnaire. Factor analysis was used to reduce the dimensions and ensure the construct validity. Then we could use fewer dimensions to represent the original data constructs and preserve the majority of information provided by it. Principal component analysis was employed to select the factors and orthogonal rotation was later used to extract common factors. The guidelines for factor extraction were developed from the suggestions proposed by Hair, Anderson, Tatham, and Black (1998) to extract the factors with the eigenvalue bigger than 1. As the results from five times factor analysis, 19 questions with factor loading of less than 0.5 were deleted and 10 new factors remained. These 10 new factors explained 76.17% of the variance. Additionally, the Cronbach's α was used to verify the 10 factors' reliability. The result showed that Cronbach's α was over 0.70. This means that the new measurement had reached an acceptable reliability. These 10 new factors would be the job satisfaction dimensions in the following analysis. These 10 dimensions and their individual reliability were listed below.

Factor 1 showed the management style of immediate managers. The reliability (Cronbach's α) was 0.97; Factor 2 meant the nature of the job. The reliability was 0.95; Factor 3, the working environment. The reliability was 0.95; Factor 4, opportunity of promotion. The reliability was 0.90; Factor 5, the interpersonal relationship with the colleagues. The reliability was 0.88; Factor 6, safety and environmental protection. The reliability was 0.93; Factor 7, salary and benefits. The reliability was 0.89; Factor 8, family relationships: how satisfied they were with their current job and the relationship between job and the family life, e.g. how the job would support the family, how supportive the family members were to the job, and the family time after the job. The reliability was 0.79; Factor 9, performance evaluation. The reliability was 0.92; Factor 10, department environment. The reliability was 0.90.

3.2.3. Learning commitment

This version was adopted from Tsai and Huang (1998). The main content concerned the psychological

state of employees' willingness to learn new knowledge and skills continuously for their firm's benefits and for themselves. The content reliability of the measurement was reviewed by a few HR professors and HR managers. There were five questions in total and the reliability (Cronbach's α) was 0.94. The questions were:

- (1) I am willing to spend extra time taking part in the internal and external training courses provided by the firm.
- (2) I am eager to learn more specific knowledge and skills to achieve the job goals.
- (3) I believe that all the learning opportunities are advantageous to me.
- (4) I believe that all the learning opportunities are advantageous to the firm.
- (5) To me, being able to learn constantly is very important.

3.2.4. Control variables

Personal contingency factors referred to demographic variables that might influence employees' cognition toward the firm's system, environment and interpersonal relationships. When designing HR systems, the firm had to take various demographic variables into account. Therefore, while investigating the impact of job satisfaction on learning commitment, these variables would be changed to dummy variables for control.

3.2.5. Sample and distribution

We conducted a questionnaire survey on the employees of the seven factories of the firm. A total of 276 copies of the questionnaire were sent out and 218 copies were returned afterwards. The return rate was 78.60%; there were 209 valid questionnaires and the valid return rate was 75.72%. The invalid returns included those with too many questions missed out or those without thoughtful answers, for example, those with the same answers throughout the questionnaire. The copies with miss-outs on personal information would be re-considered to judge their validity. The basic information of the respondents is shown in Table 1.

3.2.6. Analyses and results

3.2.6.1. Correlation between job satisfaction factors and learning commitment. The correlation analyses of all variables were conducted. Table 2 shows that the 10 elements of job satisfaction positively correlated with learning commitment, and also correlated with each other. This meant that when job satisfaction increased, employees' learning commitment also increased.

Table 1
The basic information of the respondents

Variable	Category	No. of people	Percentage
Working location	First and second factories in Kaohsiung	32	15.3
	Taichung factory	18	8.6
	Third–sixth factories in Kaohsiung	159	76.1
	Missing	0	0
Working department	Site (manufacturing and maintenance staff)	151	72.2
	Non-site	53	25.4
	Missing	5	2.4
Position	Supervisors (including foremen)	51	24.4
	Non-supervisors	149	71.3
	Missing	9	4.3
Seniority	Less than 5 years	0	0
	6–10 years	30	14.4
	11–15 years	98	46.9
	More than 16 years	71	34.0
	Missing	10	4.8
Education level	Junior high graduates	0	0
	Senior high graduates	74	35.4
	College graduates	75	35.9
	University graduates	43	20.6
	Master graduates or above	9	4.3
	Missing	8	3.8
Age	Less than 30 years old	2	1
	30–39 years old	77	36.8
	40–49 years old	102	48.8
	More than 50 years old	19	9.1
	Missing	9	4.3

3.2.6.2. *The influences of job satisfaction factors on learning commitment.* Demographic variables might affect job satisfaction and learning commitment. Employees' job satisfaction level and learning commitment at work might be different due to the differences in individual background. In order to simplify the effects of job satisfaction on learning commitment; we changed the demographic variables to dummy variables for control.

The hierarchical regression analysis shown in Table 3 revealed that in model 1, when controlled variables were added to the regression mode, R^2 was 0.12. Some demographic variables indeed influenced the learning commitment significantly ($F = 2.41$, $P < .05$). When adding other job satisfaction factors, the value of R^2 in model 2 increased to 0.411. The R^2 value increased 0.28. Therefore, the regression of the job satisfaction factors could explain the increase in 28.7% of the variance of learning commitment. Moreover, the findings from F -test showed that the factors of job satisfaction could explain the dependent variables of learning commitment significantly ($F = 7.20$, $P < .001$). We took a further examination of the regression co-efficient test in the two models and found that only “the interpersonal relationship with colleagues” and “family relationship” had reached the significant level. These elements significantly influenced learning commitment because the regression co-efficient was positive. This means the more satisfied they were with these two elements, the more learning commitment they had. We also tested the co-linearity problems among independent variables. The findings shown that the tolerance and variance inflation factor (VIF) have matched with the standard of acceptance. Therefore, there should not be co-linearity problems among the job satisfaction dimensions.

Table 2
The correlation between job satisfaction and learning commitment

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Learning commitment											
2. The nature of the job	0.42**										
3. Overall working environment	0.38**	0.76**									
4. Opportunity for promotion	0.34**	0.66**	0.74**								
5. Interpersonal relationship with colleagues	0.44**	0.40**	0.30**	0.33**							
6. Safety and environmental protection	0.44**	0.63**	0.66**	0.55**	0.46**						
7. Salary and benefits	0.27**	0.53**	0.56**	0.60**	0.18**	0.45**					
8. Family relationship	0.53**	0.64**	0.66**	0.54**	0.37**	0.60**	0.45**				
9. Performance evaluation systems	0.44**	0.58**	0.62**	0.65**	0.38**	0.59**	0.45**	0.58**			
10. Department environment	0.40**	0.62**	0.70**	0.64**	0.40**	0.61**	0.46**	0.62**	0.61**		
11. Management style of direct managers	0.38**	0.51**	0.53**	0.53**	0.43**	0.50**	0.24**	0.43**	0.61**	0.58**	

* $p < 0.05$.

** $p < 0.01$.

Table 3
Results of regression analysis of relations with learning commitment

Variables	Model 1		Model 2	
	$\beta(p)$	VIF	$\beta(p)$	VIF
Working department	0.50* (0.00)	1.53	0.13 (0.39)	1.80
Position	-0.24 (0.17)	1.82	-0.00 (0.99)	1.98
Seniority D1	-0.02 (0.29)	2.70	0.01 (0.93)	2.87
Seniority D2	-0.47* (0.05)	3.83	-0.23 (0.27)	4.16
Education D1	-0.15 (0.31)	1.47	0.06 (0.60)	1.60
Education D2	0.00 (0.93)	2.33	0.08 (0.67)	2.60
Education D3	-0.23 (0.44)	1.21	-0.01 (0.96)	1.31
Age D1	-0.16 (0.77)	22.21	-0.66 (0.18)	23.61
Age D2	-0.05 (0.93)	24.97	-0.56 (0.27)	26.30
Age D3	0.05 (0.92)	9.40	-0.31 (0.56)	9.89
Management style of the direct managers			0.00 (0.36)	2.09
The nature of the job			-0.02 (0.90)	3.10
Overall working environment			0.00 (0.95)	4.64
Opportunity for promotion			-0.07 (0.53)	3.40
Interpersonal relationship with colleagues			0.38** (0.00)	1.53
Safety and environmental protection			0.04 (0.62)	2.54
Salary and benefits			0.003 (0.96)	1.99
Family relationship			0.34** (0.00)	2.44
Performance evaluation			0.154 (0.12)	2.70
Department environment			0.06 (0.47)	2.93
R^2 (adjusted R^2)	0.12 (0.06)		0.41 (0.33)	
ΔR^2	0.12		0.28	
F -change	2.41*		7.20**	
Significant F -change	0.01		0.00	

* $p < 0.05$.

** $p < 0.01$.

3.2.6.3. *Summary of quantitative study.* Quantitative analysis showed the following. Firstly, if employees were more satisfied with their relationships with colleagues after downsizing, their learning commitment increased greatly. Secondly, if employees were more satisfied with their family relationship, the learning commitment increased greatly. Some elements of job satisfaction, such as organization's environment, managers' leadership, the nature of the job, salary and benefits had been generally recognized as the very important elements at work. Surprisingly, the results of this survey revealed that they did not have a significant influence on learning commitment. Therefore, in order to have a clear picture of the findings, we would compare these with the findings from qualitative study.

3.3. Qualitative study

3.3.1. Interviews and investigations

Since the qualitative research would help collect and explain data with a more human touch for exploring the perceptive issues of employees' psychological state. Sherer and Leblebici (2001) also suggested that qualitative researches could better clarify the special

characteristics of HR practices and their rationale. The combination of qualitative and quantitative methods would avoid the over-optimistic and biased inference caused by structured questionnaire surveys and statistical method (Chien, 1994). Thus, except for the previous quantitative study, the same topic was focused on to conduct face-to-face interviews and relevant document investigation as a qualitative study. For the interviews, 9 union leaders (all leaders of this labor union in this case company including chief director, directors, supervisors and representatives of negotiation), 4 senior HR professionals (e.g. HR manager, senior HR professionals, about 60% of total HR people in this case company) and 20 unit managers (about 80% of total managers in this case company) were interviewed separately for their opinions toward which of 11 job satisfaction elements, used in questionnaire survey, are the most important ones for motivating employees' learning commitment. The reasons for selecting these three groups of employees to interview were (1) data from multiple resources would be more accurate to understand the real facts and (2) the rival hypotheses and triangulation comparisons would be helpful to clarify the information gained. Generally



Fig. 1. Triangulation of different groups.

speaking, managers tended to speak for the management's side, whereas the counter party, union leaders acted on behalf of the employee side. HR people were neutral between management–labor relationships. Since HR people were playing the role of not only implementing management's policies but also maintaining good relations with employees. Therefore, if the managerial people tended to have opposite or contrary opinions with employees, HR professionals' opinions would be helpful to clarify the real facts. This triangulate relationship is shown in Fig. 1.

The document investigations included reviewing the minutes of labor–management meeting; employees' skill cross-training systems and pre-downsizing and post-downsizing HRM relevant records. The purpose for doing this was to have a better understanding of the context and helped to verify the opinions from interviews. At the end, the results from interviews and investigations would be compared with those results from quantitative analyses to find out the differences and similarities.

3.3.2. Findings from interviews and investigations

Both union leaders and HR Professionals group were suitable for respectively conducting focus group

interview to obtain the key conclusion on which of job satisfaction elements were critical ones for motivating employees' learning commitment according to the size of group, member's expertise on the topic, authority and motivation (Delery & Shaw, 2001; Krueger & Casey, 2000). Through group discussions, the concluded job satisfaction elements from these two focus groups are marked "V" in Table 4. For the managers' group, the size of this group (20) was not appropriate for conducting focus group interviews. Thus, one-by-one interviews were arranged and conducted instead. The frequency distribution was used to calculate the weight and rank which elements were most important ones. The results are shown in Table 4.

From Table 4, we could see there was a huge difference between management-oriented unit managers and employee-oriented union leaders in how to motivate employees to learn. From the column of "unit managers ranking", we could see that 68% of the unit managers considered "salary and benefits" as the most important factors motivating employees to learn; 63% for "education and training", 57% for "career development", 52% for "performance evaluation" and 47% for "the nature of the job and working pressure" meanwhile, "direct managers' management style", "family relationship" and "interpersonal relationship with colleagues" were the least important elements. In contrast, the union leaders recognized that "family relationship", "interpersonal relationship with colleagues" and "management style of immediate managers" would be the critical factors motivating employees to learn, and the top five elements which were ranked by unit managers were considered as less important. This was quite different, even contrary, to the unit managers' opinions. For HR professionals, the

Table 4
The triangulation analysis of employees' expectations

Elements employees expect to be satisfied	Unit managers ranking (%)	HR professionals	Union leaders
Salary and benefits	1 (68%)		
Education and training	2 (63%)		
Career development	3 (57%)	V	
Performance evaluation systems	4 (52%)	V	
The nature of the job and working pressure	5 (47%)	V	
Channels of promotion	6 (42%)		
Department working environment	7 (37%)		
Discipline management	8 (31%)		
Safety and environmental protection	9 (26%)		
Overall working environment	10 (11%)		
Management style of direct managers	11 (11%)	V	V*
Family relationship	12 (11%)	V	V
Interpersonal relationship with colleagues	13 (7%)	V	V

V: The critical motivators concluded by union leaders and HR professionals; V*: strongly expected but hard to actualize.

neutral group had some overlap items with each of the other two groups. For “career development”, “performance evaluation” and “the nature of the job and working pressure” were the same as managers’, but HR group did not pick up “salary and benefits” and “education and training” as the critical elements as managers group treated them as the top two elements. For “family relationship”, “interpersonal relationship with colleagues” and “management style of immediate managers” HR group’s conclusion was the same as union leaders’. This overlapping part with union leaders’ conclusion revealed that employees preferred more satisfaction on elements for “family relationship”, “interpersonal relationship with colleagues” and “management style of immediate managers”. This triangulate comparison implied that managers group actually ignored what employees really need.

Why there was such a big gap between the managers group and employees group? Some important findings were discovered in our focus groups interview with union leaders and HR professionals group. First, unit managers valued “salary and benefits” as the foremost motivating elements to employees; however, from the union leaders standpoint, they regarded “salary and benefits” as the only guarantee of a stable family life. What employees cared for was the secure income to for supporting their families rather than the salary and benefit systems. We also found from the meeting minutes which provided by HR group concerning the skills cross-training systems that employees often complained that the training for different skills and knowledge and the exams for certifying their additional knowledge and skills in the post-downsizing era had negatively influenced their family lives seriously. Although some of their families could understand, others unfortunately could not. Therefore, we concluded this was why employees selected “family relationships” as the foremost motivating element. They hoped to have a stable and secure job to support their family and also to have better relationship with their families. Secondly, unit managers expected that “education and training” was the second most important motivating element; however, employees thought that there were too many cross-learning skills and too much knowledge for them to learn. It would be a great help if all the colleagues were willing to exchange skills, knowledge and experience rather than jealousy guarding them due to the competitive environment. This was the reason why employees chose the “interpersonal relationship with colleagues” as one of the top two motivating element rather than “education and training system”. HR group also supported the above augment

from their counseling experience to employees regarding skills training problem. In addition, for “career development” and “performance evaluation” which were considered by managers group as within the top three and top four important motivating elements; however, union leaders had a very different opinion. The following was their abridged comments regarding these motivating elements: “the atmosphere at the work place has changed since downsizing; . . . under this situation, keep your job secure would be much important and realistic than seeking for the promotion opportunity; you have to work hard and adjust yourself to fit the change of organization, . . . as long as you could well adjust yourself and obey orders, you won’t be found at faults by the managers. Therefore, you don’t need to pay much attention to the performance evaluation system.”

The union leaders and HR group both considered that the direct managers’ management style would strongly affect the staff’s learning outcomes, but unit managers did not pick this as an important one. The union leaders concluded that the managers’ management style (autocratic vs. open; relentless vs. considerate, etc.) and their ability to reinforce teamwork would significantly influence employees’ willingness and outcomes of learning. But, they also added: “Everyone, including managers and employees, has been suffering due to downsizing and working under greater pressure. . . . Under this circumstance, managers cared only their own matters as well as employees do, therefore, you can not expect too much from managers.”

Both union leaders and HR group concluded that in fact there had been so many factors affecting employees’ learning motivation. Unfortunately, the climate had changed after downsizing; hence, employees were no longer proud of the firm. They did not feel being taken care of by the firm, and eventually they tended to turn to their families, close colleagues and friends.

3.3.3. Summary of qualitative study

From the triangulate comparison, we concluded that from the employees’ standpoint, “family relationship” and “interpersonal relationship with colleagues” were the most important elements motivating them to learn. And there was a big gap between managers and labors.

3.4. The comparisons between qualitative and quantitative research

After comparing, according to employees’ perception the findings from qualitative and quantitative methods were almost similar. The most important

motivators of job satisfaction elements which concluded by union leaders in focus group interview were consistent with the result of quantitative study from the questionnaire survey to 209 employees. “Family relationship” and “interpersonal relationship with colleagues” were the two most important job satisfaction elements motivating them to learn. The qualitative research pertinently expressed the inner thoughts of the employees. Meanwhile, what managers had emphasized factors such as “salary and benefits”, “education and training”, “career development” and “performance valuation systems” as not being so important to employees.

4. Conclusions and recommendations

In this research, rigid analyses of both qualitative and quantitative data revealed that, “family relationships” and “interpersonal relationships” are the most two important elements which influenced employees’ learning commitment in the job satisfaction construct. Therefore, they become the critical variables in predicting learning commitment. The HR managers should use the finding to design HRM practices after downsizing. Although “the management style of direct managers” is also critical, employees will not expect too much from the management team due to the insecurity of employment faced by the managers after downsizing. Our findings revealed the following implications.

4.1. Implications to theory development and further research

From Maslow’s Theory of Hierarchical Needs, the remaining employees (survivors from downsizing) place more emphasis on lower level social needs which are closely related to them. It is because they felt depressed and frustrated when the needs of the higher levels could not be fulfilled. Then they tended to withdraw from higher level needs and will not expect to fulfill their high level social needs or the needs of self-actualization. The main reason is similar to the summary of the previous literature review of downsizing. Downsizing has inevitably made employees lose their trust in the firm (Brockner, 1988; Brockner, Wiesendelf, Reed, Grover, & Martin, 1993; Gomez-Mejia et al., 1998; Millward & Brewerton, 2002; Shah, 2000). Alderfer’s ERG Theory (ERG: Existence, Relatedness and Growth needs, 1972) also supported the findings. Owing to the changes in contingency, individuals must give up the original high-level needs

and turn to lower level ones. The finding has accorded with Herzberg’s Two Factor Theory of Motivation (2003). “Interpersonal relationships with colleagues”, “family relationships” and “management style of direct managers” are categorized as hygiene factors which would tend to cause dissatisfaction. Thus, in order to enhance employees’ learning commitment after downsizing, the firm has to reduce the factors causing dissatisfaction. Nevertheless, other than hygiene factors, we still have to pay attention to motivation factors when designing HRM practices to motivate learning, such as a sense of accomplishment, praise and development in knowledge and skills. These will influence employees’ willingness to learn and innovate and eventually revitalize the whole organization. The variable is worth further investigation and helps predict employees’ possible behaviors (e.g. learning) after downsizing.

A few studies (Cascio, 1993, 2002; Cameron, 1994; Naumann, 1998; Naumann et al., 1995; Sun, 1994) have suggested that employees would care for an organization’s performance only if they felt they were being taken care of by the firm. Chadwick et al. (2004) proposed and verified that the benefits and morale of HRM practices aiming to take care of employees would positively affect the organization’s performance after downsizing. It is also tested in this research. If the firm would pay due attention to employees’ interpersonal relationships with colleagues and family relationships, they would commit more and work harder. Further research on downsizing and an organization’s support after downsizing should imply organizational support theory as explaining and predicting the causal relationships between HRM practices, employees’ behaviors and the organization performance under the situation of downsizing. Meanwhile, the new variable of the organizational support will also bring new implications and insights to organization learning and the field of knowledge management.

With respect to the research method, the combination of quantitative and qualitative methods will indeed provide more profound and pertinent explanations in exploring the inner motivations of employees and further developing HRM practices. Another benefit of the combining the two approaches is being able to screen out some rather important factors which are less significant from the quantitative results. It proves advantageous and helpful when conducting research on organization changes, organization learning and HRM-related issues.

Although the results of this paper have supported the appeals in “The New Organizational Reality:

Downsizing, Restructuring, and Revitalization” (Gowing, Kraft, & Quick, 1998) that firms had to assist employees to overcome the crisis of will and skill after downsizing. There were still lots of situational factors would significantly influence the correlation between the psychological contract and the behaviors. Thus, the results from some empirical research might be limited to some specific jobs and industries (Maierhofer et al., 2002). In other words, more empirical research has to be performed in order to verify if the findings from this research could be generalized to other firms in various industries, organizational and cultural backgrounds. Especially, the findings of this research came from the context of Chinese society in Taiwan. The results of this research may easily apply to other Chinese societies like China, Hong Kong, or Singapore, etc. even may extent to those similar culture context countries like Japan and Korea. However, it may not be able to be generalized to other countries in Asia, even to the other countries in the world. Nevertheless, this research originally aimed to analyze employees’ psychological constructs as the basis in designing HRM practices. It would provide an obvious direction to revitalizing downsizing organizations. The construct is tested and possesses certain reliability and validity. Therefore, we suggest that this construct is a new orientation for the topics regarding organization changes, organization downsizing, SHRM practices, etc.

4.2. Implications for management practices

The results of this research indicate that firms should effectively use their limited resources to design and implement employee-fit (response to employees’ real needs) HRM practices to motivate employees to learn and reinforce corporate competitive advantages after downsizing. Those multinational firms in particular should consider different cultural backgrounds to develop culture-fit HRM practices to motivate employees. For instance, the findings of this research revealed that in the context of Chinese society, employees after downsizing might value and rely more on the close human relationships rather than fulfilling the needs of higher social and ideal psychological levels. Thus, for those MNC managers who managing business in this context of the society like China, Taiwan, Hong Kong, Singapore, etc. should consider and design the HRM practices from employees’ viewpoint in order to motivate them. After downsizing, firms may not waste resources emphasizing the highly ideal and social appeals (such as loyalty and sharing the future), but focus on building up a job-oriented leadership that

motivates employees to learn. Then, employees’ trust would be rebuilt and those who had strategic core competencies would be more willing to stay and learn eagerly. In doing so, firm performance will be promoted and the competitive advantages will be continuously reinforced.

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