

## **Seven Ps model of work practices and outcomes: Generalisable or culture-specific?**

Presbitero, A., & Langford, P.H.

Presented at the 25th Annual Conference of the Society of Industrial-Organizational Psychology, Atlanta, USA, 8-10 April.

### **Abstract**

This study tests the generalisability of the 7Ps model of work practices and outcomes, a model developed using data predominantly collected from Australia (Langford, 2009). To test the generalisability of the model, data were collected in a different cultural context of the Philippines – a nation that has a non-western cultural orientation and is considered to have high collectivism index. Responses were randomly allocated into two groups (Group 1 = 378; Group 2 = 379) to enable possible modifications and cross-validation of the model. Confirmatory factors analyses were conducted and results demonstrated support for the generalisability of the 7Ps model of work practices (purpose, property, participation, people, and peace) and outcomes (progress and passion) in a different cultural context. These results can pave the way for the advancement of a universal structure of work practices and outcomes similar to how the big five of personality and the structure of human values achieved generalisabilities in all cultural contexts.

**Keywords:** Work practices and outcomes, employee opinion survey, generalisability studies, collectivistic culture.

There have been a number of generalisability studies done over the years. Van de Vijver and Leung (1997) classify generalisability studies as those in which, research findings are obtained in one cultural or demographic group and then compared to the results from another group. Typically, in cross-cultural research, it is a western group being compared to a non-western group. In such studies, there is little or no reference to cultural elements other than the target variables on which cultures are compared.

One of the most prominent generalisability studies is Schwartz's (1992) work on the structure of human values. The ten universal values, measured by a total set of 44 values, include power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. These values are considered to form a two-dimensional structure: openness to change versus conservation and self-transcendence versus self-enhancement. Empirical evidences for the cross-cultural stability of the two-dimensional structure across 40 countries were obtained. Another area that attracted the attention of many researchers is the five-factor model of personality (e.g., Church & Katigbak, 1989; McCrae & Costa, 1985; McCrae, Zonderman, Costa, Bond, & Paunonen, 1996). This area of research attempted to establish the universality of the big-five structure of personality which includes neuroticism, extroversion, openness to experience, agreeableness, and conscientiousness.

In organizational contexts, the multi-dimensional approach that aims to simultaneously measure work practices and outcomes have attracted the attention of both researchers and practitioners. However, to date, there has not been any generalisability study that involves the multi-dimensions of work practices and work outcomes. This paper utilises the seven Ps model of

work practices and outcomes, a model developed using data predominantly collected from Australia (Langford, 2009) and tests the model's generalisability in another culture.

### *Theory of organisational climate*

Organisational climate studies have been around for many decades. Reichers and Schneider (1990) studied the evolution of climate as a construct and explained its long history mainly in the fields of industrial and organisational psychology and organisational behaviour. One of the earliest and most dominant definitions of climate is the shared perceptions of employees about their working environment (Schneider, 1975; Schneider & Reichers, 1983; Schneider & Snyder, 1975). These perceptions were assumed to be primarily descriptive of organisational practices and processes. More recent work on climate expands the descriptive view and highlights the evaluative and affective nature of organisational climate (James, James & Ashe, 1990; Patterson, Warr, & West, 2004). The modern view of climate also incorporates the models of Kopelman, Brief, and Guzzo (1990) and Sparrow (2001). Kopelman et al. (1990) which explored organisational climate as influencing organisational productivity through "cognitive and affective states" and "salient organisational behaviours". The former states are primarily employees' work motivation and their feelings of job satisfaction. Those are considered to influence productivity through three kinds of behaviour: attachment behaviours, role-prescribed behaviours and citizenship behaviours. Meanwhile, Sparrow (2001) asserted that psychological states are seen to be linking perceived climate and potential person-organization fit with salient employee behaviours and then with performance at the organisational level. These states include perceived justice and organisational support, work motivation, and feelings of trust, commitment, job involvement, and job satisfaction.

A strong area of interest within organisational climate studies is how to measure these perceptions and evaluations of working environments. Different measures of organisational climate have been developed over the years. One of the early known measures of organisational climate is the Organisational Climate Questionnaire (OCQ) by Litwin and Stringer (1968). In their model, the concept of organisational climate is used as an intervening variable, mediating between organisational factors (e.g. structure, leadership, managerial practices and decision processes) and motivation tendencies. The OCQ measure comprises of 50 items that assess nine dimensions of climate using the model. However, a number of studies (e.g., Muchinsky, 1976; Sims & LaFollette, 1975) have suggested that the nine scales showed poor split-half reliabilities and that a six-factor structure would be more appropriate. Rogers, Miles and Biggs (1980) argued that there was virtually no agreement among researchers regarding which items loaded best on the different factors, and hence concluded that the OCQ lacked reliability and validity.

A more recent tool called the Organisational Climate Measure (OCM) was published by Patterson et al. (2005). The OCM, based upon Quinn and Rohrbaugh's Competing Values Framework, was developed and tested with a large sample of employees drawn from 55 manufacturing organisations. The results revealed that the instrument has sound psychometric properties and provides researchers with a robust means of assessing 17 dimensions of

employee perceptions of their work environments. However, the OCM did not find a second-order factor structure mapping onto the predicted four quadrants of the Competing Values Framework.

*Seven Ps model of work practices and outcomes*

Parker, Baltes, Young, Huff, Altmann, and Lacost (2003) and van de Berg and Wilderom (2004) have emphasised the need to compress the wide variety of work practices. Kraut (2006) also highlighted the importance of determining the causal relationships between work practices and outcomes. Recently, Langford (2009) successfully compressed the multi-dimensions of work practices and linked these with outcomes using an employee survey tool called the Voice Climate Survey (VCS). Using empirical data collected predominantly from the individualistic culture of Australia, he presented the 7Ps model of work practices (purpose, property, participation, people and peace) and outcomes (progress and passion).

As Langford (2009) highlights, the Purpose system, involving clarifying the objectives and goals of the organisation and setting direction, appears associated with previous research into goals (Locke & Latham, 2002), vision (Podsakoff, MacKenzie, Moorman & Fetter, 1990), and ethics and justice (Greenberg, 1987). The Property system, involving managing the work and information processes and physical facilities of the organisation, appears related to research into a component of empowerment of associated with provision of resources and information (Spreitzer, 1997), re-engineering (Hamel & Prahalad, 1996), and the importance of good quality facilities, equipment and procedures for promoting workplace safety (Reason, Parker & Lawton, 1998). The Participation system, comprising of organisational members' involvement, development and recognition, appears associated with research into high-involvement organisations (Lawler, 1986). The People system, involving relationships among coworkers, is clearly associated with extensive literature on teamwork (West, Borrill & Unsworth, 1998). Finally, the Peace system is clearly related to the workplace stress, work-life balance and work-family conflict (O'Driscoll & Cooper, 1996; Spector et. al., 2004).

In an effort to link these work practices with outcomes, Langford (2009) presents a measure of employee engagement (labeled as Passion in order to keep a consistent nomenclature across all the higher-order factors with the Voice Climate Survey). Passion is grounded in existing, well-researched constructs, incorporating three lower-order factors of organisation commitment, job satisfaction, and intention to stay. The other work outcome, Progress, presents management practices that are non-employee outcomes including achieving organisation objectives, change and innovation, and customer satisfaction.

The VCS demonstrated sound internal and external psychometric qualities. The lower and higher-order factor structures showed satisfactory factor loadings and fit indices that were stronger than those demonstrated by the previously discussed OCM. The VCS showed a favorable CFI, NFI and RMSR of .95, .94, and .03 respectively while OCM showed .85, .83 and .04 respectively. The internal reliability estimates for the VCS were sound with an average alpha of .83 which was similar to the average of .81 for OCM even though the number of items per factor is fewer for the VCS (3.3 items per factor) in comparison with OCM (4.8 per factor). Langford (2007) has also produced a shortened, "five-minute" version of the VCS called the Voice Pulse Survey (VPS) that includes 31 items that measure the same seven higher-order factors identified in the VCS. Langford (2007) reported a CFI, NFI and RMSR for the VPS of .93, .93 and .03. Moreover, Langford reported only small reductions in predictive validity ranging from .00 to .08 when comparing the shorter VPS against the longer VCS.

### *Generalisability of the 7Ps model of work practices and outcomes*

The 7Ps model of work practices and outcome demonstrated a strong psychometric support for an employee opinion survey that can be used as a robust measure of organisational climate and employee engagement. However, one of the limitations of the study is that the samples used in developing the model were collected from a single national culture of Australia. This paper tests the generalisability of the 7Ps model of work practices and outcomes in a different cultural context – that of the Philippines, a nation considered to be non-western and has a highly collectivistic orientation.

The Philippines, as a national context, had been used in different generalisability studies including that of the big five structure of personality. Church and Katigbak (2002) explained that the first attempt to test the generalisability of the five-factor model in a non-western culture was done in the Philippines referring to the early work done by Guthrie and Bennett (1971). One of the possible reasons that the Philippines is suitable for generalisability studies is the collectivistic orientation within the nation combined with English as the standard language of business and commerce. The seminal work of Hofstede (1980) showed that the Philippines belongs to those nations having high collectivistic orientation (with a low individualism index of 32). Other collectivistic nations include Malaysia, Hongkong, and Singapore having individualism indices of 26, 25, and 20 respectively. In these nations, people from birth onwards are integrated into strong and cohesive in-groups, often extended families, which continue protecting them in exchange for unquestioning loyalty. A more recent study, the GLOBE study by House, Hanges, Javidan, Dorfman, and Gupta (2004) validated this finding showing that the Philippines topped the list of 61 countries in terms of societal in-group collectivism practices and was ranked 8<sup>th</sup> in terms of societal institutional collectivism practices. In-group collectivism was operationalised in the GLOBE study by a set of questions that assessed the degree to which individuals express pride, loyalty, and interdependence in their families. Institutional collectivism was measured through a set of four questions that focused on the degree to which institutional practices at the societal level encourage and reward collective action. Specifically, the questions assessed whether group loyalty is emphasized at the expense of individual goals, whether the economic system emphasizes individual or collective interests, whether being accepted by other group members is important, and whether individualism or group cohesion is valued more in the society.

### *Hypothesis:*

The 7Ps model of work practices and outcomes (purpose, property, participation, people, peace, progress, and passion) will generalize in a different cultural context of the Philippines, a non-western nation and is considered to have high collectivism index.

## **Method**

### *Participants*

Data were collected through the Ateneo Center for Organisation Research and Development (CORD), Ateneo de Manila University, Manila, Philippines. A total of 805 working professionals participated in the study. The participants came from various industries in the Philippines including construction, manufacturing, accommodation/hospitality, finance and insurance, professional and business services, mining, information and communication technologies, and

university. Those who answered less than 75% of the total items in the survey questionnaire were not included in the analysis. With this qualification, the number was reduced to 757.

In terms of employment status, 86% were fulltime, 3% were part-time, 7% were on contract/fixed term, 1% was short-term casual (less than 12 months) and 3% were missing data. When asked about their level of seniority in the organisation (1 being the lowest and 10 being the highest), 47% identified themselves to belong to 1-4, 37% to 5-7, 11% to the top 8-10 and 5% were missing data. When asked about whether their organisation was unionized or not, 56% said their organisation was unionized while 39% said their organisation was not unionized; 5% were missing data.

### *Measures*

*Organisational Climate and Outcomes.* The Voice Pulse Survey (VPS; Langford, 2007) was used in this study to measure factors of work practices and outcomes previously identified by Langford (2009; Langford, Parkes & Metcalf, 2006). The VPS was developed by Voice Project, a research and consulting company based in Macquarie University, Sydney, Australia. The VPS is a shortened version of a full-length survey called Voice Climate Survey (VCS; Langford, 2009). The VPS has 31 items and all answers are provided on a 5-point rating scale ranging from 1 = "Strongly Disagree" to 5 = "Strongly Agree", with an additional option of "Don't Know/Not Applicable". Psychometric properties of the VPS were described in the introduction to this paper, but in summary they meet commonly agreed standards and compare well to the full-length VCS and alternative measures such as the previously described OCM. The translation of the VPS was not considered to be necessary as English is the official language used in business and organizations in the Philippines.

## **Results**

### *Confirmatory Factor Analyses*

In order to test the seven-factor model within the culture of the Philippines, confirmatory factor analyses (CFAs) were conducted. Responses were randomly allocated into two groups (Group 1 = 378; Group 2 = 379) to enable possible modifications and cross-validation. The CFA on Group 1 sample showed significance in chi-squared tests (chi square = 1172, df = 413,  $p < .01$ ). However, the CFI, NFI, and RMSR were acceptable (.90, .85, and .05, respectively), similar to those achieved by Langford (2007) using an Australian sample (.93, .93, and .03 respectively), and superior to other accepted measures of climate such as the previously mentioned OCM by Patterson et al. (with comparable fit statistics of .85, .83, and .04 respectively). Upon inspection of the modification indices, no alternative allocation of items to factors was found that would produce significantly stronger fit indices, hence the same model was used for the CFA for Group 2. The CFA in Group 2 sample also showed significance in chi-squared tests (chi-square = 1011, df = 413,  $p < .01$ ), but again the CFI, NFI, and RMSR (.92, .87, and .05, respectively) were all acceptable and showed margin improvement in comparison to the initial results.

Using the entire data set (N = 757), the seven factors showed a good average alpha of .82 (see Table 1 for alphas for each factor). However, it should be noted that one of the higher-order factors, Peace, has a low internal reliability of .64. The reason for this can be the two items used to measure this factor, whereas other factors have three or more items. It can be

recommended that an additional item (making it 3 items) may increase the internal reliability of this particular higher-order factor. But nonetheless, the results suggest solid internal psychometric properties for the VPS and support for the seven higher-order factors of work systems and outcomes. Table 1 also presents the regression weights from the confirmatory factor analyses.

## Discussion

This study builds upon the earlier work on the 7Ps model of work practices and outcomes (Langford, 2009). The development of the model is encouraging given that previous researchers have unfortunately been unable to compress the wide array of work practices and linking these with work outcomes (e.g., Guest, 1997; Huselid, 1995; Patterson et. al., 2005). The primary goal of this study is to test the generalisability of the 7Ps model of work practices and outcomes which demonstrated strong empirical support in the individualistic and western culture of Australia. As asserted by Van de Vijver and Leung (1997), theories and models that have shown validity in one cultural context do not necessarily demonstrate equally good results in another cultural context, hence, the need for cross-cultural research. Cross-cultural generalisability of theories and models require empirical investigation and confirmatory analyses which is evidently demonstrated in this study.

Results show support for the generalisability of the 7Ps model of work practices and outcomes in a different cultural context of the Philippines. As mentioned earlier, the model was developed using predominantly data collected from the individualistic culture of Australia. These two countries have been repeatedly demonstrated to be quite different in cultural orientation particularly in terms of individualism and collectivism. According to Hofstede (2001), Australia has the second highest score in terms of individualism index (90) while the Philippines is ranked low (32). The results can pave the way for the advancement of a universal structure of work practices and outcomes similar to the way the big five of personality and the structure of human values achieved generalisabilities in almost all cultural context. However, in order to further increase confidence in the generalisability of the work practices and outcomes, more studies should be done to test the 7Ps model in other cultural contexts similar to what was done when testing the generalisability of the five factor model of personality and the universal structure of human values.

The results of the study also validated the psychometric properties of the Voice Pulse Survey (VPS) which increases the confidence that the tool can be used in both individualistic and collectivist cultures as a brief "five-minute" measure of organizational climate and work outcomes. Colihan and Waclwaski (2006) explained the unique advantages of pulse surveys over the traditional full-length surveys. They argued that pulse surveys can provide timely employee attitude measurements to decision makers in organizations. The timely and fast feedback, which may not be done in traditional survey due to the length, enables decision makers to quickly respond to emerging circumstances in the organization.

While the generalisability results are encouraging, it was beyond the scope of the present study to investigate the influence of national culture on the relationships between the 7Ps model of work practices and outcomes. Langford, Parkes and Metcalf (2006) reported a structural model, developed using predominantly individualistic Australian data, exploring the possible causal relationships between the five work practices (purpose, property, participation, people and

peace) upon the two work outcomes (passion and progress) within the seven factors. It would be interesting in future studies to explore the moderating role of societal culture upon the relationships within the 7Ps model demonstrated by Langford et al.

Similar to other generalisability studies, this research focused on employee perceptions of work practices and outcomes. These individual-level perceptions have been aggregated to form the societal scores. One limitation of doing so is missing out on business unit or organizational level scores which can reveal some interesting patterns and results. In future studies, it may be interesting to determine work practices and outcomes at the organizational level and explore relationships to organizational data such as employee turnover, employee absenteeism, employee productivity, and organizational financial performance similar to what was done by Langford (2009) using the Australian samples.

Finally, employee opinion surveys have become increasingly popular tools for organizational development and change because employee perceptions of work environments are found to be linked to important individual and organizational outcomes (Parker, et. al., 2003). Burke (2006) also believed that organizational surveys can serve as an important lever and an “action tool” for organizational development and change. Future studies can also look into how the 7Ps model of work practices and outcomes, which has been developed using employee surveys, can be applied in various organizational change and development efforts, and whether such applications need to be modified in different national or organisational cultures. Doing so will not only further the 7Ps model theoretically but will also validate the practical orientation of the model – benefiting both academics and practitioners who are researching on, managing and developing work environments and organisational climate.

## References

- Burke, W.W. (2006). Organizational surveys as leverage for organization development and change. In I. Kraut (Ed.), *Getting action from organizational surveys* (pp. 264-293). San Francisco, CA: Jossey-Bass.
- Church, A. T., & Katigbak, M. S. (1989). Internal, external, and self-report structure of personality in a non-western culture: An investigation of cross-language and cross-cultural generalizability. *Journal of Personality and Social Psychology*, *57*, 857-872.
- Church, A. T., & Katigbak, M. S. (2002). The Five-Factor Model in the Philippines: Investigating Trait Structure and Levels Across Cultures. In R. R. McCrae & J. Allik (Eds.), *The Five-Factor Model of Personality Across Cultures*. (pp. 129-154). New York: Kluwer Academic/Plenum Publishers.
- Colihan, J., & Waclawski, J. (2006). Pulse surveys: A limited approach with some unique advantages. In I. Kraut (Ed.), *Getting action from organizational surveys* (pp. 264-293). San Francisco, CA: Jossey-Bass.
- Greenberg, J. (1987). A taxonomy of organizational justice theories. *Academy of Management Review*, *12*, 9-22.
- Guest, D. E. (1997). Human resource management and performance: A review and research agenda. *International Journal of Human Resource Management*, *8*, 263-276.
- Guthrie, G. M., & Bennett, A. B., Jr. (1971). Cultural differences in implicit personality theory.

- International Journal of Psychology*, 6, 305-312.
- Hamel, G., & Prahalad, C. K. (1996). Competing in the new economy: Managing out of bounds. *Strategic Management Journal*, 14, 79-96.
- Hofstede, G. (1980). *Culture's consequences*. Beverly Hills, CA: Sage.
- Hofstede, G. (2001). *Culture's consequences: comparing values, behaviors, institutions, and organizations across nations* (2<sup>nd</sup> ed.). Thousand Oaks, CA; Sage.
- House, R.J., Hanges, P.J., Javidan, M., Dorfman, P.W., & Gupta, V. (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Sage Publications.
- Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38, 635-672.
- James, L. R., James, L. A., & Ashe, D. K. (1990). The meaning of organizations: The role of cognition and values. In B. Schneider (Ed.), *Organizational climate and culture* (pp. 40-84). San Francisco: Jossey-Bass.
- Kopelman, R. E., Brief, A. P., & Guzzo, R. A. (1990). The role of climate and culture in productivity. In B. Schneider (Ed.), *Organizational climate and culture* (pp.282-318). San Francisco, CA: Jossey-Bass.
- Kraut, A. I. (2006). *Getting action from organizational surveys: New concepts, technologies and applications*. San Francisco: Jossey-Bass.
- Langford, P.H., Parkes, L.P., & Metcalf, L. (2006). *Developing a Structural Equation Model of Organizational Performance and Employee Engagement*. Paper presented at the 2006 Joint Conference of the Australian Psychological Society and New Zealand Psychological Society.
- Langford, P. H. (2007). *Psychometric Support for a "Five-Minute" Measure of a Seven-Model of Work Systems*. Paper presented at the 7th Industrial and Organizational Psychology Conference/1st Asia Pacific Congress on Work and Organizational Psychology.
- Langford, P. H. (2009). Measuring organizational climate and employee engagement: Evidence for a 7Ps model of work practices and outcomes. *Australian Journal of Psychology*, 61 (4), 185-198.
- Lawler, E. E. (1986). *High-involvement management*. San Francisco, CA: Jossey-Bass.
- Litwin, G. H., & Stringer, R. A. (1968). Motivation and organizational climate. Division of Research, Graduate School of Business Administration, Harvard University.
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57, 705-717.
- McCrae, R. R., & Costa, P. T. (1985). Updating Norman's "adequacy taxonomy": Intelligence and personality dimensions in natural language and in questionnaires. *Journal of Personality and Social Psychology*, 49, 710-721.
- McCrae, R. R., Zonderman, A. B., Costa, P. T., Bond, M. H., & Paunonen, S. V. (1996). Evaluating replicability of factors in the revised NEO Personality Inventory: Confirmatory factor analysis versus Procrustes rotation. *Journal of Personality and Social Psychology*, 70, 552-566.
- Muchinsky, P. M. (1976). An assessment of the Litwin and Stringer Organizational Climate Questionnaire: an empirical and theoretical extension of the Sims and LaFollette study. *Personnel Psychology*, 29, 371-392.

- O'Driscoll, M., & Cooper, C. L. (1996). Sources and management of excessive job stress and burnout. In P. Warr (Ed.), *Psychology at work* (Vol. 4th ed., pp. 188-223). London: Penguin.
- Parker, C. P., Baltes, B. B., Young, S. A., Huff, J. W., Altmann, R. A., & Lacost, H. A. (2003). Relationships between psychological climate perceptions and work outcomes: A meta-analytic review. *Journal of Organizational Behavior, 24*, 389-416.
- Patterson, M. G., Warr, P. B., & West, M. A. (2004). Organizational climate and company performance: the role of employee affect and employee level. *Journal of Occupational and Organizational Psychology, 77*, 193-216.
- Patterson, M. G., West, M. A., Shackleton, V. J., Dawson, J. F., Lawthom, R., Maitlis, S., Robinson, D.L., & Wallace, A.H. (2005). Validating the organizational climate measure: links to managerial practices, productivity and innovation. *Journal of Organizational Behavior, 26*, 379-408.
- Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effect on followers' trust in leader satisfaction and organizational citizenship behaviors. *Leadership Quarterly, 1*, 107-142.
- Reason, J., Parker, D., & Lawton, R. (1998). Organizational controls and safety: The varieties of rule-related behavior. *Journal of Occupational and Organizational Psychology, 71*, 289-304.
- Reichers, A. E., & Schneider, B. (1990). Climate and culture: An evolution of constructs. In B. Schneider (Ed.), *Organizational climate and culture*. San Francisco: Jossey-Bass.
- Rogers, E. D., Miles, W. G., & Biggs, W. D. (1980). The factor replicability of the Litwin and Stringer Organizational Climate Questionnaire: an inter- and intra-organizational assessment. *Journal of Management, 6*, 65-78.
- Schneider, B. (1975). Organizational climate: An essay. *Personnel Psychology, 28*, 447-479.
- Schneider, B., & Snyder, R. A. (1975). Some relationships between job satisfaction and organizational climate. *Journal of Applied Psychology, 60*, 318-328.
- Schneider, B., & Reichers, A. E. (1983). On the etiology of climates. *Personnel Psychology, 36*, 19-39.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests on 20 countries. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 25, pp. 1-65). Orlando, FL: Academic Press.
- Sims, H. P., & LaFollette, W. (1975). An assessment of the Litwin and Stringer Organizational Climate Questionnaire. *Personnel Psychology, 28*, 19-38.
- Sparrow, P. R. (2001). Developing diagnostics for high performance organization cultures. In C. L. Cooper, S. Cartwright, & P. C. Earley (Eds.), *The international handbook of organizational culture and climate* (pp. 85-106). Chichester: Wiley.
- Spector, P. E., Cooper, C. L., Poelmans, S., Allen, T. D., O'Driscoll, M., Sanchez, J. I., et al. (2004). A cross-national comparative study of work-family stressors, work hours, and well-being: China and Latin-America versus the Anglo world. *Personnel Psychology, 57*, 119-142.
- Spreitzer, G. M. (1997). Toward a common ground in defining empowerment. In W. A. Pasmore & R. W. Woodman (Eds.), *Research in organizational change and development* (Vol. 10, pp. 31-62). Greenwich, CT: JAI Press.

- van de Berg, P. T., & Wilderom, C. P. M. (2004). Defining, measuring and comparing organizational cultures. *Applied Psychology: An International Review*, 53, 570-582.
- Van de Vijver, F. J. R., & Leung, K. (1997). *Methods and Data Analysis for Cross-Cultural Research*. California: Sage Publications Inc.
- West, M. A., Borrill, C. S., & Unsworth, K. L. (1998). Team effectiveness in organizations. *International Review of Industrial and Organizational Psychology*, 13, 1-48.

Table 1. Voice Pulse Survey © items and factors, with alpha's for higher-order factors and regression weights for items from the confirmatory factor analyses.

Higher-order factors	Lower-order practice	Item	CFA Group 1	CFA Group 2
Purpose (.84)	Organization Direction	I am aware of the values of this organization.	.70	.80
	Results Focus	This organization has a strong focus on achieving positive results.	.75	.78
	Mission & Values	I believe in the values of this organization.	.80	.83
	Ethics	This organization is ethical.	.76	.75
	Role Clarity	I understand how my job contributes to the overall success of this organization.	.62	.65
	Diversity	There is equal opportunity for all staff in this organization.	.56	.58
Property (.82)	Resources	I have easy access to all the information I need to do my job well.	.70	.73
	Processes	Our policies and procedures are efficient and well-designed.	.74	.77
	Technology	This organization makes good use of technology.	.74	.72
	Safety	Keeping high levels of health and safety is a priority of this organization.	.68	.71
	Facilities	The buildings, grounds and facilities I use are in good condition.	.54	.56
Participation (.92)	Leadership	Senior management are good role models for staff.	.78	.78
	Recruitment & Selection	Managers in this organization know the benefits of employing the right people.	.79	.74

	Cross-Unit Cooperation	Knowledge and information are shared throughout this organization.	.78	.72
	Learning & Development	There is a commitment to ongoing training and development of staff.	.68	.68
	Involvement	I am consulted before decisions that affect me are made.	.77	.69
	Reward & Recognition	The rewards and recognition I receive from this job are fair.	.75	.74
	Performance Appraisal	The way my performance is evaluated provides me with clear guidelines for improvement.	.76	.75
	Supervision	I have confidence in the ability of my manager.	.70	.76
	Career Opportunities	I am given opportunities to develop skills needed for career progression.	.74	.78
People (.88)	Motivation & Initiative	My co-workers put in extra effort whenever necessary.	.85	.80
	Talent	My co-workers are productive in their jobs.	.86	.91
	Teamwork	My co-workers give me help and support.	.80	.82
Peace (.64)	Wellness	I feel emotionally well at work.	.85	.80
	Work/Life Balance	I am able to stay involved in non-work interests and activities.	.53	.63
Progress (.83)	Organization Objectives	The future for this organization is positive.	.85	.78
	Change & Innovation	This organization is good at learning from its mistakes and successes.	.82	.83
	Customer Satisfaction	This organization understands the needs of its customers.	.74	.72
Passion (.84)	Organization Commitment	I am proud to tell people that I work for this organization.	.83	.76
	Job Satisfaction	Overall, I am satisfied with my job.	.80	.86
	Intention To Stay	I would like to still be working in this organization in five years time.	.75	.81

---

# The “lower order practices” are the labels for the lower-order factors from the longer Voice Climate Survey (VCS). Each item in the VPS has been selected as best representing one of the lower-order factors from the VCS.

© The Voice Pulse Survey is copyrighted by Macquarie University. Please contact the author concerning the conditions of use.