

Highlight, copy & paste to cite:

Yeo, M. & Ananthram, S. (2008). A Test of Four Western Scales in a Singaporean Service Organisation, *Research and Practice in Human Resource Management*, 16(2), 119-127.

A Test of Four Western Scales in a Singaporean Service Organisation

Mabel Yeo & Subramaniam Ananthram

ABSTRACT

Organisational citizenship behaviour has received much scholarly attention in recent times, especially in an era where the intellectual capacity of employees continues to be a major source of competitive advantage. It has been argued that organisational citizenship behaviour can be encouraged through job satisfaction, management of leader-subordinate relationships and organisational justice perceptions in order to maximise the working potential of individual employees. This research note tests the validity of four Western measures in an Eastern setting, with 565 employees in a Singaporean service organisation. These previously used measures are (1) organisational citizenship, (2) job satisfaction, (3) organisational justice and (4) leader-subordinate relationships. The results of the factor analyses and reliability assessments reported in this paper, reveal that the Western developed instruments needed to be reduced in order to obtain robust validity and reliability. The findings are discussed in terms of the usefulness of the instruments and implications for contemporary HRM practices.

INTRODUCTION

Organisations face "...constant pressure to improve results and stay competitive." (Dreher & Dougherty 2001: 3). To be more efficient and productive, organisations are leveraging on technology (Nankervis, Compton & Baird 2002), which enables organisations to adopt leaner structures to achieve 'more with less'. Each employee, therefore, holds greater responsibility than before, and hence, is likely to be of greater value to the organisation (Dreher & Dougherty 2001). Unlike easily replicated technology, the intellectual capacity of employees could be a continual source of competitive advantage (Yeung & Ready 1995, Teagarden & Von Glinow 1997).

A major challenge for organisations is how to manage employees more effectively and efficiently so that they continue to engage in suitable behaviours to achieve organisational goals. Hence, there has been considerable interest and consequently, research into organisational citizenship behaviour (OCB) (e.g. Moorman 1991, Schappe 1998, Williams, Pitre & Zainuba 2000), which has been described as discretionary individual behaviour beyond job requirements that is not explicitly recognised through the organisation's reward structure (Organ 1988). It has been argued

that OCB can be encouraged through job satisfaction (Organ 1988, Moorman 1991, Schappe 1998), management of leader-subordinate relationships (Liden & Graen 1980, Bolino 1999) and organisational justice perceptions (Moorman 1991, Bhal 2006) in order to maximise employee working potential, which can be utilised as a source of competitive advantage.

This research note tests the validity and reliability of the four Western measures of organisational citizenship, job satisfaction, organisational justice and leader-subordinate relationships in a Singaporean setting through factor analyses and reliability assessments.

METHODOLOGY

Site and Sample

The site for the study was a service organisation in Singapore. Respondents were 565 full time employees in a cross section of positions, with varying management responsibilities. The sample represented approximately 25 per cent of the 2,200 employees that were part of the studied organisation. A brief demographic profile of the respondents is presented in Table 1, which shows four main features. A first feature is that over two thirds of the sample were males (67.4 per cent). A second interesting feature of the sample was that 78.2 per cent of the respondents were between 25 to 45 years of age, with the 25 to 34 age group making up almost half the total number of respondents (49.4 per cent), and only 9.9 per cent were 46 years of age or older. This observation suggested a relatively young workforce, consistent with the finding that 63.9 per cent of respondents had been in the organisation for less than 10 years.

Table 1 presents two more interesting elements. A third interesting feature of the sample was the education levels of the respondents. The cohort represented an equal number of participants with secondary (50.9 per cent) and post secondary education (49.1 per cent), respectively. The basic education requirement at the time of recruitment was a secondary education qualification; thereby indicating that the organisation was either hiring better educated employees or employees were upgrading their education level in order to continue in the studied organisation. A fourth feature of the sample was the relative seniority of employees in terms of their management responsibilities. Senior officers constituted 26.5 per cent of the sample respondents while junior officers represented 73.5 per cent of the sample. Senior officers in the studied organisation had executive level management responsibilities (akin to senior managers) where junior officers had first line management responsibilities (akin to supervisory managers).

Table 1
Demographic profile of respondents (N = 565)

Demographic Variables	Categories	%
Gender	Male	67.4
	Female	32.6
Age (in years)	Less than 25	11.9
	25-34	49.4
	35-45	28.8
	46 and above	9.9
Education	Below 5 'O' Level	32.6
	5 'O' Level or more	18.3
	Diploma 'A' Level	25.8
Level in the organisation	Degree	23.3
	Senior officers	26.5
	Junior officers	73.5
	Less than 5	31.0

Years in service	5 to 10	32.9
	11 to 15	14.3
	16 or more	21.8

Procedure

The study adopted two conscious strategies. The first was to obtain a reasonable sample from the identified population (i.e. a Singapore organisation). A series of discussions and meetings with a senior manager from the identified organisation affirmed the support for the suggested research. It had been observed from previous research that the use of networks or *guanxi* greatly assisted in data collection especially from Eastern contexts where the academic-industry nexus was not as ingrained as evidenced in Western contexts (Chatterjee & Pearson 2002, Ananthram 2008). It was hoped that this conscious strategy of employing the *guanxi* phenomenon would provide an acceptable response rate.

A second deliberate methodology was the adoption of a combination of quantitative and qualitative techniques. Increasingly scholars are arguing for the use of context relevance research especially in non Western settings through the use of a more interpretive or collaborative approach by combining quantitative and qualitative techniques (Adler Campbell & Laurent 1989, Graham & Gronhaug 1989, Teagarden, et al. 1995). As the research proposed to adopt Western designed and tested instruments in an Eastern setting there was a belief that benefits could be afforded by employing a quantitativequalitative design. Indeed, a supplementary qualitative component of the research methodology conducted by this study entailed gaining a first hand interpretation of the quantitative results using a focus group session. Eight participants who were representative of the sample quantitative respondents were invited to attend a focus group session to explain some patterns observed from the results of the quantitative analyses. Given that the focus group session was utilised only as a means to provide validation to, and/or clarification of the quantitative findings, no qualitative analysis was conducted. The interviewer made notes at the focus group sessions. One of the features of this study was the adoption of a combination of quantitative and qualitative techniques from the data collection phase of the study to the data analyses stage.

These two research strategies were communicated to the study organisation and respondents were intimated of the study and its importance to the organisation at various information sessions. Data were collected through an anonymous survey utilising questionnaires. These questionnaires were distributed to respondents through the heads of their work units. Respondents were given a week to complete the questionnaire. A note was attached to the questionnaire to inform respondents of the purpose of the study and that participation in the study was voluntary. The note also included instructions for respondents to consider how they were personally affected and to consider their immediate supervisor when assessing all statements in the questionnaire. Respondents were also informed that the organisation would be provided with the research findings. However, it was made clear that the respondents' identities would remain confidential. The researcher's contact details were provided for respondents to seek clarification or further information. These conscious strategies resulted in a total 600 questionnaires being distributed with 565 completed questionnaires being returned, resulting in a response rate of 94 per cent.

Measures

Western developed instruments to measure organisational justice, management of leader-subordinate relationships, job satisfaction and organisational citizenship behaviour were utilised for this study. Respondents were asked to evaluate a series of statements on a seven point Likert scale ranging from 1 = 'strongly disagree' to 7 = 'strongly agree'.

Organisational Justice

Organisational justice was measured using an 18 item adapted from Niehoff and Moorman (1993). Three dimensions of organisational justice were evaluated, distributive justice (four items),

procedural justice (six items), and interactional justice (eight items). Niehoff and Moorman (1993) reported that the Cronbach alpha reliability coefficients for each of the three dimensions was at least 0.74.

Management of Leader-Subordinate Relationship

The uni dimensional 11 item leader-member exchange (LMX) instrument, adapted from Liden and Maslyn (1998) was utilised by this study to measure the management of leader-subordinate relationship. Empirical studies published in the literature have reported Cronbach alpha reliabilities ranging from 0.78 to 0.93 (Liden & Maslyn 1998, Ishak 2005).

Job Satisfaction

Job satisfaction was measured using an 18 item uni dimensional scale developed by Brayfield-Rothe (1951) and later adapted by Moorman (1991). Both these studies adopted a five point Likert scale which was converted by this study to a seven point scale to be consistent with the scales used in assessing the other nominated variables. Brayfield-Rothe (1951) and Moorman (1991) reported reliability scores of 0.87 and 0.86, respectively.

Organisational Citizenship Behaviour

A reduced version of the 34 item scale measuring OCB developed by Van Dyne, Graham and Dienesch (1994) was used by this study which reported an overall reliability of 0.95. A total of 11 items were removed from the original scale as it was believed these items were inappropriately worded for the study organisation. The reduced 23 item scaled was intended to measure three dimensions of OCB; namely; loyalty, compliance, and participation.

Analysis

The study data from the 565 Singaporean respondents were assessed using SPSS and employing component analysis and the Varimax option with Kaiser normalisation. A three-step multivariate factor analysis was employed to determine construct validity, and Cronbach's alpha coefficient was used to examine construct reliability.

In the first step, factor analysis was initially conducted with the 18 item organisational justice and 11 item LMX scales. Four factors were expected (three for organisational justice and one for LMX) and four were obtained. However, the three factor organisational justice scale converged into two factors and the uni dimensional LMX scale loaded onto two factors indicating that the Singaporean respondents had a different perception of the constituents of these two scales as compared to Western respondents from earlier reported studies. Discussions with a cohort of eight respondents (at qualitative feedback sessions) suggested that they perceived organisational justice and relationship with managers to be uni dimensional. A recommendation at the feedback sessions was that items one, two, three, and four measuring organisational justice and items four and five measuring relationship with managers (LMX) be deleted as these items were confusing and difficult to understand. Based on this feedback a second round of factor analysis that forced all 23 items (reduced 14 item organisational justice scale and reduced nine item LMX scale) onto two factors was conducted. Forcing the items into two factors revealed two distinct factor loadings with the 14 items measuring organisational justice loading onto one factor (eigen value 9.1) and the nine items measuring relationship with managers loading onto the second factor (eigen value 7.2).

Table 2
Principal component factor analysis and Cronbach reliability estimates

Item	Descriptions	Factors			
		1	2	3	4
Job Satisfaction					
JS1	My job is like a hobby to me.	.088	.269	.696	.014
JS2	My job is usually interesting enough to keep me from getting bored.	.132	.372	.677	.091
JS5	I enjoy my work more than my leisure time.	.181	.051	.659	.014

JS7	I feel fairly well satisfied with my present job.	.258	.170	.467	-.037
JS12	I feel that I am happier in my work than most other people.	.225	.090	.693	-.167
JS13	Most days I am enthusiastic about my work.	.242	.194	.672	-.251
JS15	I like my job better than the average worker does.	.289	.139	.651	-.183
JS17	I find real enjoyment in my work.	.289	.186	.712	-.190

Organisational citizenship

OC3	I do not tell outsiders this is a good place to work.	-.142	-.102	-.287	.522
OC4	I do not defend the organisation when employees criticise it.	-.103	.091	.292	.593
OC7	I avoid extra duties and responsibilities at work.	-.101	.082	.129	.738
OC8	I do not work beyond what is required.	-.074	.085	.069	.711
OC14	I do not meet all deadlines set by the organisation.	-.032	.131	.039	.638
OC17	I sometimes waste organisational resources.	-.136	.058	.153	.640
OC19	Sometimes I miss work for no good reason.	.001	.078	.058	.458
OC22	I do not pursue additional training to improve performance.	-.060	.084	.033	.689
OC23	I have difficulty cooperating with others on projects.	-.085	.057	.046	.683

Organisational justice

OJ5	Job decisions are made by the management in an unbiased manner.	.664	.094	.267	-.121
OJ6	My supervisor makes sure that all employee concerns are heard before job decisions are made.	.802	.226	.147	-.108
OJ7	To make job decisions, my supervisor collects accurate and complete information.	.830	.147	.174	-.103
OJ8	My supervisor clarifies decisions and provides additional information when requested by employees.	.777	.227	.128	-.108
OJ9	All job decisions are applied consistently across all affected employees.	.787	.120	.234	-.059
OJ10	Employees are allowed to challenge or appeal job decisions made by the management.	.663	.168	.212	-.030
OJ11	When decisions are made about my job, my supervisor treats me with kindness and consideration.	.779	.379	.196	-.098
OJ12	When decisions are made about my job, my supervisor treats me with respect and dignity.	.734	.385	.185	-.149
OJ13	When decisions are made about my job, my supervisor is sensitive to my personal needs.	.698	.316	.155	-.091
OJ14	When decisions are made about my job, my supervisor deals with me in a truthful manner.	.765	.375	.204	-.147

OJ15	Concerning decisions made about my job, my supervisor discusses the implications of the decisions with me.	.775	.392	.225	-.100
OJ16	My supervisor offers adequate justification for decisions made about my job.	.771	.419	.204	-.110
OJ17	When making decisions about my job, my supervisor offers explanations that make sense to me.	.782	.393	.197	-.100
OJ18	My supervisor explains very clearly any decision made about my job.	.749	.417	.213	-.087
Leader-subordinate relationship					
RM1	I like my supervisor very much as a person.	.310	.801	.189	-.141
RM2	My supervisor is the kind of person one would like to have as a friend.	.272	.793	.197	-.101
RM3	My supervisor is a lot of fun to work with.	.327	.738	.191	-.101
RM6	My supervisor would defend me to others in the organisation if I made an honest mistake.	.318	.656	.134	-.043
RM7	I do work for my supervisor that goes beyond what is specified in my job description.	.215	.613	.174	-.093
RM8	I am willing to apply extra efforts, beyond those normally required, to further the interests of my work group.	.234	.591	.332	-.191
RM9	I am impressed with my supervisor's knowledge of his/her job.	.423	.747	.181	-.108
RM10	I respect my supervisor's knowledge of and competence on the job.	.471	.716	.152	-.161
RM11	I admire my supervisor's professional skills.	.444	.755	.178	-.138
Eigenvalues		9.6	6.4	4.6	4.1
Percentage of variance explained		23.9	16.0	11.5	10.3
Cumulative percentage of variance explained		23.9	39.9	51.4	61.7
Cronbach alpha reliabilities		0.97	0.94	0.87	0.82

Notes:

a. JS = job satisfaction, OC = organisational citizenship, OJ = organisational justice, and RM = relationship with managers.

b. Sample size N = 565.

c. Extraction method: principal component method; Rotation method: Varimax with Kaiser Normalisation converged in six iterations.

In the second step of the overall analysis, factor analysis was conducted with the 19 item job satisfaction scale and the 23 item organisational citizenship scale. Four factors were expected and nine emerged suggesting once again that these Western developed instruments evoked different responses when tested in an Eastern context. A second round of factor analysis forcing the items onto four factors resulted in the items loading onto more than one factor. The sample cohort of eight respondents (at qualitative feedback sessions) once again explained that their perception of job satisfaction and organisational citizenship was two distinct, but uni dimensional constructs. The cohort elucidated that they were not able to cluster items onto different organisational citizenship factors as their perception of the variable was that they all contributed to varying levels of organisational citizenship behaviour. Hence, a third round of factor analysis was conducted forcing the items into two factors. Some overlapping was observed and items 3, 4, 6, 8, 9, 10, 14 and 16 measuring job satisfaction, and items 1, 2, 5, 6, 9, 10, 11, 12, 13, 15, 16, 18, 20 and 21 measuring organisational citizenship were deleted. A fourth round of factor analysis resulted in both

satisfaction being measured using eight items with an eigen value of 4.3 and organisational citizenship measured with nine items and an eigen value of 3.8.

Owing to the concerns of contextuality, another round of factor analysis was conducted with all the retained items measuring the four variables in order to ascertain the validity of the factors as part of the third step. Four distinct factors emerged with eigen values of 9.6 (organisational justice), 6.4 (relationship with managers), 4.6 (job satisfaction) and 4.1 (organisational citizenship). These uni dimensional factors are reported in Table 2 along with their Cronbach alpha coefficients which suggested that the adopted scales had high robustness.

DISCUSSION

No published research has simultaneously considered the evaluations for validity and reliability for the four variables; namely 'organisational citizenship, job satisfaction, organisational justice and leader-subordinate relationships in a single study, in a Singaporean setting. Hence, this study has the potential to give confidence to other researchers to employ the four assessed variables in other non Western contexts. Given that the study employed Western instruments in an Eastern setting (i.e. a Singaporean service organisation), a deliberate research method of adopting a combination of quantitative and qualitative techniques was employed from the data collection stage to the analyses of the results in order to maintain contextual relevance. The findings from the factor analyses and reliability analyses reveal interesting findings. It was evident from the quantitative-qualitative methodology adopted by this study that the Singaporean respondents viewed all four variables as uni dimensional constructs. While the variables of 'leader-subordinate relationships' and 'job satisfaction' have been reported in the literature as uni dimensional, the other two variables of 'organisational citizenship' and 'organisational justice' have been reported in the Western literature as having distinct factors. This unexpected finding is perhaps, attributed to the nature of the organisation and sample. Feedback from the cohort of respondents (at the feedback sessions) alluded to the fact that the Singaporean service organisation was a strong cultured top down hierarchical management style organisation where managers and employees perceived organisational citizenship and organisational justice to be unique and independent. The feedback sessions suggested that the 'organisational justice' items were perceived by the respondents as a degree of trust towards their supervisor whereas the 'organisational citizenship' items were perceived by the study participants to be an indicator of loyalty towards the organisation.

Another contributing factor towards these uni dimensional perceptions could be attributed to national culture (Farh, Zhong & Organ (2004). It might be argued that employee perceptions of organisational citizenship and organisational justice would be very different in a high power distance society such as Singapore compared to a lower power distance Western society. Indeed, employees from a high power distance society are more likely to perceive themselves as being powerless to influence outcomes and retaliate covertly to perceived injustice, thereby attributing organisational justice to trust related factors. These contentions further ground the importance of contextual relevance while adopting Western instruments and testing them in non Western settings. Perhaps this is best achieved through the adoption of a combination of quantitative and qualitative techniques – right from the data collection phase through to the interpretation of the study findings and analyses of results. For this study, the high Cronbach alpha scores for each uni dimensional variable provide some degree of confidence in the applicability of these variables for hypotheses testing.

CONCLUSION

One of the salient features of the study was its practical relevance as it concerns how organisations can influence the extent of OCB among its employees. The knowledge of whether leader-subordinate relationship, organisational justice and job satisfaction affects OCB could shift organisations' focus from the search for an ideal compensation system towards activities or

policies that contribute to shaping employees' perception of the organisation and their supervisors. These include, enactment of fair procedures and employee participation. The potential findings from the interactions among the assessed variables could also assist organisations determine training and development activities for supervisors or would be supervisors, particularly in the area of relationship building and communication. In addition, technology has made organisations more borderless, making it possible for the organisation and its employees to be located in different countries, such as the outsourcing of call centres to an offshore location. It has also increased the prevalence of flexible work, such as 'work-from-home'. With such changes to the employment landscape with various reforms being implemented by the Singapore Government (MOM 1999, 2005, 2006), contemporary organisations may become more remote to employees, making it difficult for employees to identify with their employing organisation. Their only contact with the organisation may, therefore, be through the supervisor whom they contact. Organisational justice may, therefore, be perceived plainly as supervisor justice.

This research note highlights the importance of contextual relevance and the use of a quantitative/qualitative research design to mitigate some of the problems encountered with adopting Western developed instruments in non Western settings. Indeed, a paradigm that incorporates both quantitative and qualitative inputs affords some degree of confidence in interpreting the results so as to minimise any misunderstandings that could result owing to the confusion created by cultural nuances. In the future, researchers might adopt similar techniques when conducting research in different contexts in an endeavour to accommodate the effects of cultural nuances.

AUTHORS

Mabel Yeo is a manager at a Singaporean service organisation. She holds a Masters degree in Human Resource Management from the Singapore Human Resources Institute (SHRI). Her research interests include human resource management practices and policies in South East Asia.

Email : mfwyeo@gmail.com

Subramaniam Ananthram, PhD is a Lecturer in Management at the School of Management, Curtin Business School at Curtin University of Technology. His research interests include global strategy, global mindset development and cross cultural issues impacting on management in services.

Email: S.Ananthram@curtin.edu.au

REFERENCES

- Ananthram, S. (2008) Drivers of globalization in the Indian and Chinese services industry: An empirical insight. In P. Verma, P. B. Bhaskaran, & P. M. Madhani (Eds.), (2008) *Globalization: opportunities and challenges* (3-17). Delhi: Wisdom Publications.
- Adler, N. J., Campbell, N., & Laurent, A. (1989). In search of the appropriate methodology: Outside the People's Republic of China looking in. *Journal of International Business Studies*, 20(1), 61-74.
- Bhal, K. T. (2006). LMX-citizenship behavior relationship: Justice as a mediator. *Leadership & Organization Development Journal*, 27(2), 106-117.
- Bolino, M. C. (1999). Citizenship and impression management: Good soldiers or good actors? *Academy of Management Review*, 24(1), 82-98.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35(5), 307-311.
- Chatterjee, S. R., & Pearson, C. A.L. (2002). Work goals of Asian managers: Field evidence from Singapore, Malaysia, India, Thailand, Brunei and Mongolia. *International Journal of Cross-Cultural Management*, 2(2), 251-268.

Dreher, G. F., & Dougherty, T. W. (2001). *Human resource strategy: A behaviour perspective for the general manager* (International Ed.). Singapore: McGraw-Hill.

Farh, J., Zhong, C., & Organ D. W. (2004). Organizational citizenship behavior in the People's Republic of China. *Organization Science*, 15(2), 241-253.

Graham, J. L., & Gronhaug, K. (1989). Ned Hall didn't need a haircut: Or why we haven't learned much about international marketing research in the last 25 years. *Journal of Higher Education*, 60(1), 152-157.

Ishak, N. A. (2005), [Promoting employees' innovativeness and organisational citizenship behaviour through superior-subordinate relationship in the workplace](#), *Research and Practice in Human Resource Management*, 13(2), 16-30.

Liden, R. C., & Grean, G. B. (1980). Generalizability of the vertical dyad linkage model of leadership. *Academy of Management Journal*, 23(3), 451-465.

Liden, R. C., & Maslyn, J. M. (1998). Multidimensionality of leader-member exchange: An empirical assessment through scale development. *Journal of Management*, 24(1), 43-72.

MOM (1999). *Flexible work arrangements*. Singapore: Labour Relations Department, Ministry of Manpower.

MOM (2005). *Work-life harmony report - Findings and recommendations for employers on how to use work-life strategies to optimize business performance*. Singapore: Quality Workplace Department, Ministry of Manpower.

MOM (2006). *Labour market, Second Quarter 2006*. Singapore: Manpower Research and Statistics Department, Ministry of Manpower [on-line].

Moorman, R. H. (1991) Relationship between organizational justice and organizational citizenship behaviours: Do fairness perceptions influence employee citizenship?. *Journal of Applied Psychology*, 76(6), 845-855.

Nankervis, A., Compton, R., & Baird, M (2002). *Strategic human resource management* (4th ed.). Australia: Thomson.

Niehoff, B. P., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behaviour. *Academy of Management Journal*, 36(3), 527-556.

Organ, D. W. (1988). A re-statement of the satisfaction-performance hypothesis. *Journal of Management*, 14(4), 547-557.

Schappe, S. (1998). The influence of job satisfaction, organizational commitment and fairness perceptions on organizational citizenship behaviour. *Journal of Psychology*, 132(3), 227-290.

Teagarden, M. B., & Von Glinow, M. BA. (1997). Human resource management in cross-cultural contexts: Emic practices versus epic philosophies. *Management International Review*, 37(1), 7-20.

Teagarden, M. B., Von Glinow, M. A., Bowen, D. E., Frayne, C. A., Nason, S., Huo, Y. P., Milliman, J., Arias, M. E., Butler, M. C., Geringer, J. M., Kim, N., Scullion, H., Lowe, K. B. & Drost, E. A. (1995). Toward a theory of comparative management research: An idiographic case study of the best international human resources management project. *Academy of Management Journal*, 38(5), 1261-1287.

Van Dyne, L., Graham J. W., & Dienesch, R M. (1994). Organizational citizenship behavior: Construct redefinition, measurement, and validation. *Academy of Management Journal*, 37(4), 765-802.

Williams, S., Pitre, R., & Zainuba, M. (2000). [Does mood influence organizational citizenship behaviour intentions? An experimental manipulation of affective states](#). *Research and Practice in Human Resource Management*, 8(2), 49-59.

Yeung, A M., & Ready, D. A. (1995). Developing leadership capabilities of global corporations: A

