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Balanced between Support and Strain: Levels of Work Engagement

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Abstract

Work engagement has recently been identified as an important outcome of healthy work environments. Engagement of workers empowers organisations and provides them with a solid basis for sustainability and strategic planning for productivity gains. Using the Utrecht Work Engagement Scale (UWES) this research compared antecedents of work engagement within workers based in four countries: Australia, New Zealand, China and Hong Kong ($N = 10,614$). A K-means cluster analysis established five groups of like-minded participants: Highly Engaged (15%), Engaged (27%), Unengaged (30%), Disengaged (19%) and Very Disengaged (9%). The categorical engagement variable so derived was used to assess self-report levels of Work Demands, Work-life Balance, Work Family Conflict, Social Support, and Psychological Strain. Significant differences between the engagement groups were identified for all of these variables, with the largest effect sizes reflected in those variables measuring workplace relationships. In addition, significant differences across the national samples were identified. This research therefore demonstrates: (1) endorsement of previous research findings that organisations can consciously provide environments that foster employee engagement; (2) general consistency across cultural divides with some important differences.

Introduction

Academic interest in work engagement has developed through previous work involving work burnout (Maslach, Schaufeli, & Leiter, 2001). Burnout has consistent and predictable links with unsupportive work environments that are deficient in resources and fairness (Bakker & Demerouti, 2007; Maslach & Leiter, 2008) and was identified as an “important barometer of major social dysfunction within the workplace” (Maslach & Leiter, 1997, p. 21). Therefore researchers have speculated that the provision of environments that

are not conducive to burnout may well be synonymous with workers who demonstrate work engagement, the positive antithesis of burnout. Such organisations may well have policies that promote work-life balance, thereby clearly sending messages to employees that they are valued (Brough, O’Driscoll, & Kalliath, 2005). Alternatively, such organisations may intentionally focus on providing supportive work environments (Maslach & Leiter, 2008). Schaufeli, Bakker and Salanova (2006) suggested that the scientific study of work engagement could contribute to organisational improvement because it would provide evidence of the means by which optimum functioning can be achieved within workplaces.

Similar to work burnout, engagement as defined by Schaufeli and Bakker (2003) is multi-dimensional with three distinctive aspects: (1) the sense that the job is important and meaningful (dedication); (2) a feeling of being energized at work (vigour) and (3) time passes quickly when one is at work (absorption). According to Schaufeli and Bakker (2004) employees who are engaged in their work find it absorbing and sometimes even fun. These employees are not necessarily compelled to work hard because they have a strong work ethic or under constant management scrutiny, but because they find challenge (Schabracq & Cooper, 2000) enjoyment and intrinsic interest (Deci & Ryan, 1987) in their work. Work is therefore energizing for these employees.

It has been observed that work engagement’s positive ‘spinoff’ for organisations is a workforce that is strongly motivated, productive and unlikely to be badly affected by absenteeism and turnover (e.g. Bakker & Demerouti, 2007; Maslach & Leiter, 2008; Schaufeli & Bakker, 2004). It is therefore imperative that organisations are provided with a sense of what people seek within their work environment that will foster employee engagement, thus optimizing productivity.

Table 1. Respondents’ sex and mean age by location

	Australia		China		Hong Kong		New Zealand		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
<i>Male</i>	1733	33	836	20	168	37	221	31	2958	28
<i>Female</i>	3502	67	3260	80	283	63	498	69	7543	72
<i>Total</i>	5235	100	4096	100	451	100	719	100	10501	100
<i>Mean Age</i>	M	SD	M	SD	M	SD	M	SD	M	SD
	41.5	10.8	25.4	6.2	33.7	11.6	41.4	11.0	35.0	12.1

The present research is exploratory in that it evaluates data from five sites (two in Australia, one in New Zealand, one in China and one in Hong Kong). Individualist societies (such as Australia and New Zealand) espouse different values to collectivist societies (such as China and Hong Kong, Spector et al., 2007). Studies investigating work engagement in China specifically have been limited to a handful (e.g. Gan, Yang, Zhou & Zhang, 2007; Zhang, Gan, & Cham, 2007). Furthermore, previous research has involved student respondents, who tend not to be in permanent employment. The present research therefore sought to establish a sense of commonality between employed individuals who reported particular levels of work engagement within the different countries. It was therefore hypothesized that respondents' views of characteristics of their work environments would be predictive of levels of work engagement and that these findings would be consistent over national divides.

Method

Participants: The current research involved survey data collected from workers based in four countries: Australia (two sites: Brisbane and Canberra), New Zealand, China and Hong Kong (N=10,596). Table 1 provides the respondent's demographic information.

Materials used in the survey included (1) the four item Work-Life Balance (WLB) measure developed by the current project. This measure uses a seven point Likert response format and achieved alpha coefficients of between .75 and .93 in the current research. (2) Boyar, Carr, Mosley and Carson's (2007) nine-item work and family demands measure was employed and is scored on a five point Likert scale. Boyar et al. reported an alpha coefficient of .83 for the work demand scale and .74 for the family demand scale. (3) The four item supervisor support came from O'Driscoll, Brough, and Kalliath (2004). The measure is scored on a six point Likert scale and O'Driscoll et al. reported an alpha coefficient of .89. (4) A three item turnover intention measure reported by Brough and Frame (2004) with reported alpha coefficients of .82 was included. (5) The 12 item General Health Questionnaire (GHQ) from Goldberg (1972) is a widely used measure of psychological strain that has consistently reported high level of internal reliability in previous studies (e.g., Kalliath, O'Driscoll, & Brough, 2004). (6) The 17 item Utrecht Work Engagement Scale (UWES) from Schaufeli and Bakker (2003) was employed to measure work engagement. Schaufeli and Bakker reported alpha coefficients of .88 to .95 for dedication, .81 to .90 for vigour and .70 to .88 for absorption. The UWES is scored on a seven point Likert scale.

Results

Information in regard to Cronbach's alpha coefficients of the research variables is provided in Table 2.

Analyses 1. K-means cluster analysis was employed to classify responses into five groups of dedication, vigour and absorption, from the UWES. According to Clatworthy, Buick, Hankins, Weinman, and Horne (2005), cluster analysis provides a parsimonious approach to identifying groups of like-minded individuals, thereby imparting information about attitudes and behaviours specific to the groups. The five clusters reflect different levels of work engagement. The cluster analysis was initially conducted using two randomly selected sub groups within the dataset. Once researchers were satisfied that the analyses were similar in both data sets, the final analysis employed the full dataset. Table 3 provides information in regard to the variable z-scores at the centre of each group identified in the K-Means cluster analysis. Table 4 provides Euclidian distances between cluster centres, and demonstrates that the groups identified in the analysis were distinct from each other (Clatworthy et al.), with the greatest distance occurring between the extremes of highly engaged and very disengaged.

Table 2. Cronbach's alphas for study variables

	<i>Aust</i>	<i>Ch</i>	<i>HK</i>	<i>NZ</i>
Work-life Balance	.93	.75	.80	.81
Word Demands	.89	.73	.89	.88
Family Demands	.80	.72	.83	.81
Supervisor Support	.94	.88	.88	.93
Turnover Intentions	.85	.72	.79	.84
GHQ	.90	.82	.79	.86
Vigour	.80	.81	.82	.80
Dedication	.89	.85	.89	.86
Absorption	.79	.83	.84	.79

Note 1. Aust = Australia, Ch = China, HK=Hong Kong, NZ = New Zealand

Table 3. UWES z-scores at cluster centres

	<i>Highly Engaged</i>	<i>Engaged</i>	<i>Un-engaged</i>	<i>Dis-engaged</i>	<i>Very Dis-engaged</i>
<i>D</i>	1.30	.61	-.11	-.92	-1.84
<i>V</i>	1.34	.55	-.11	-.81	-1.94
<i>A</i>	1.38	.52	-.12	-.81	-1.90

Note: D= Dedication, V=Vigour, A= Absorption

Table 4. Euclidean distances between cluster centres

	HE	E	U	DE
E	1.36			
U	2.52	1.16		
DE	3.79	2.44	1.28	
VDE	5.60	4.24	3.08	1.81

Note: HE= Highly Engaged, E= Engaged, U=Unengaged
DE=Disengaged, VDE= Very Disengaged.

Figure 1 provides information about the distribution of engagement groups (collapsed for clarity) within the different research samples. It is noted that higher proportions of respondents from Australia and New Zealand were found in the *engaged* groups. Conversely, higher proportions of respondents from China and Hong Kong were found in the *disengaged* groups.

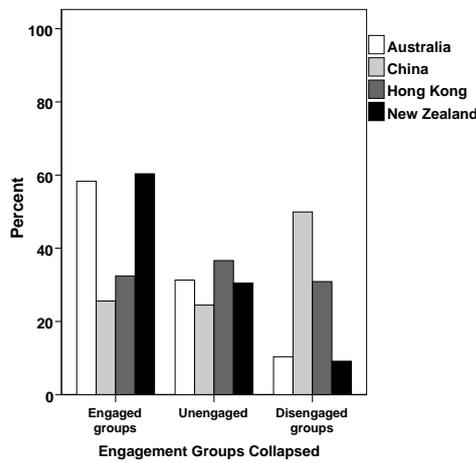


Figure 1. Levels of work engagement across the different research sites

According to Clatworthy et al. (2005), variables not employed for cluster identification can be used to validate the K-means cluster groups. It was also desirable to determine distinguishing qualities of the different groups.

Analyses 2. Work demands, family demands, work-life balance, supervisor support, psychological strain and turnover intentions were tested with levels of work engagement using ANOVA. Table 5 provides mean information in regard to these variables and indicates the significance of the observed differences between levels of work engagement in each location. The engagement groups have been collapsed in Table 5 for parsimony. In addition, further testing for differences (using ANOVA) in regard to levels of work engagement between research sites found significance $F(4, 10582) = 756.06, p < .001$. Games Howell post-

hoc tests however, revealed no significant difference between Australian and New Zealand respondents.

Table 5. Relationships between the variables in regard to levels of work engagement.

		Scale	Engaged Groups	Unengaged Group	Disengaged Groups	Sig
Australia	WLB	0-6	3.42	3.34	3.01	***
	WD	1-5	3.75	3.49	3.32	***
	FD	1-5	2.91	2.89	2.96	ns
	SS	1-6	3.93	3.50	3.00	***
	TI	1-5	1.97	2.44	3.27	***
	GHQ	1-12	2.05	2.84	2.55	***
China	WLB	0-6	3.23	3.03	2.81	***
	WD	1-5	3.63	3.47	3.35	***
	FD	1-5	3.09	3.06	2.96	***
	SS	1-6	3.44	3.09	2.58	***
	TI	1-5	1.82	2.09	2.35	***
	GHQ	1-12	1.65	1.97	2.64	***
Hong Kong	WLB	0-6	3.38	3.42	3.10	***
	WD	1-5	3.72	3.26	3.21	***
	FD	1-5	3.39	3.04	2.83	***
	SS	1-6	3.54	3.15	2.83	***
	TI	1-5	1.84	2.33	2.16	***
	GHQ	1-12	2.07	2.79	2.16	ns
New Zealand	WLB	0-6	3.54	3.39	3.48	ns
	WD	1-5	3.76	3.56	3.26	***
	FD	1-5	2.85	2.87	2.74	ns
	SS	1-6	3.91	3.63	3.03	***
	TI	1-5	2.06	2.68	3.12	***
	GHQ	1-12	1.79	2.47	3.56	***

Note 1. *** $p < .001$

Note 2. WLB = work-life balance, WD = work demands, FD = family demands, SS = supervisor support, TI = turnover intentions, GHQ = General Health Questionnaire

Discussion

The current research has demonstrated consistency with the hypothesis that respondents' viewpoints in regard to their work environment would predict levels of work engagement. This is important because, managers of organisations whose staff are engaged in their work (ideally) do not have to actively enforce or monitor work behaviour (Maslach & Leiter, 1997). Therefore time and energy of both management personnel and employees can be directed towards activities that are consistent with increased organizational productivity. High levels of work engagement have consistently demonstrated better associations with psychological health of employees and fewer intentions to seek alternative work. This is consistent with the predictions of Schaufeli and Bakker (2004) that organisations who actively promote those conditions conducive to engagement of their workers will launch momentum that will 'pay off' in terms of productivity and sustainability. The current research provides extra confirmation that certain workplace attributes are consistent with work engagement and that the pattern of relationships is common to the sites where the current research took place, despite their geographical distances from each other.

Work-life balance: There were significant differences between levels of engagement and perceptions of WLB in most sites in the current research, with higher scores on WLB associated with the higher levels of engagement. This is supportive of Brough et al.'s (2005) findings that improved psychological outcomes were consistent with the provision of resources (such as flexitime and part-time work), thereby demonstrating organisational acknowledgment of the importance of employees' family and responsibilities outside work. Brough et al. found that employees' perception of WLB is enhanced by organisational policies that accommodate and therefore validate their personal responsibilities; therefore it is observed that perceptions of WLB would be consistent with a feeling that one is supported and valued by the organisation.

Work and Family Demands: The current research found that engaged respondents on all research sites reported higher work demands than did those who were unengaged or disengaged in their work. This would suggest that higher work demands are consistent with work engagement. The UWES (Schaufeli & Bakker, 2003) explores people's sense of intrinsic motivation (people who are engaged in their work find it meaningful, absorbing and energising). Whereas, Boyer et al.'s (2007) measure for work demands specifically targets respondents' feeling that their job is demanding of their attention and that they have a lot to do. Schabracq and Cooper (2000) discussed the need for 'challenge' in people's work, describing jobs that do

not challenge employees as 'impoverished'. Deci and Ryan's (1987) description of how challenging work provides intrinsic motivation for behaviour is strikingly similar to Schaufeli and Bakker's (2003) description of workers who were highly engaged: "Intrinsically motivated behavior is by definition self-determined. It is done freely for the inherent satisfactions associated with certain activities and with undertaking optimal challenges" (Deci & Ryan, 1987, p.1034). Therefore it is suggested that Boyer et al.'s work demands measure may well have tapped into the challenges that help to make work meaningful for people who are experiencing work engagement in the current research.

By way of contrast, Boyer et al.'s family demands measure found significance with respondents reporting higher levels of work engagement from China and Hong Kong only. This finding was not repeated in the Australian and New Zealand samples, indicating some cultural differences between the research groups in regard to perceptions of family demands. It is expected that this enquiry will be extended further in this current research project.

Supervisor Support: The supervisor support measure (O'Driscoll, Brough & Kalliath, 2004) asks respondents about helpful advice, sympathetic understanding and concern, clear and helpful feedback and practical assistance. This may provide a key for appropriate interventions within organizations. Training that provides management personnel with the skills for effectively supporting and inspiring workers can be implemented with the aim of creating and sustaining work engagement among employees. Higher levels of supervisor support, as reported by respondents who also report high levels of work engagement, are consistent with previous research (e.g. Maslach & Leiter, 2008; Maslach et al., 2001).

Turnover Intentions: Turnover can be expensive for organizations because of consequent loss of momentum and the necessity to recruit and train new staff (Maslach et al., 2001). Consistent with Schaufeli and Bakker's (2003) prediction that engagement of workers would be characterized by reduced turnover intention and better mental health outcomes, the current research found significant differences between levels of engagement and turnover intention (Brough & Frame, 2004), further indicating the importance of work engagement to organizational sustainability.

GHQ: The GHQ (Goldberg, 1972) has been widely used as a measure for detecting the presence of psychological strain in the general population (Kalliath, O'Driscoll & Brough, 2004). The current research identified that high levels of psychological strain were associated with lower levels of work engagement. This supported the research hypothesis and is consistent with predictions of Schaufeli and Bakker (2004) that the

presence of work engagement in a workplace is an important signal of psychological health.

Limitations: As the current data analysis represents only the first stage of a longitudinal project, it inevitably suffers from shortcomings specific to cross-sectional research. It is anticipated that the forthcoming analysis of the longitudinal data will endorse and validate the research findings reported here.

Conclusion: The present research has demonstrated that levels of work engagement can provide organisations with an accurate assessment of how their workplace is functioning. In particular, high levels of worker engagement are consistently associated with better psychological health of employees and fewer intentions to seek alternative work. This is consistent with the predictions of Schaufeli and Bakker (2004) that organisations that actively promote work conditions that are conducive to the engagement of their workers will launch momentum that will pay off in terms of productivity and sustainability. The finding of high levels of supervisor support at the higher levels of work engagement is consistent with previous research (e.g. Maslach & Leiter, 2008) and may well provide a key as to appropriate interventions that involve more intentional preparation of leaders within organisations.

An interesting observation within the current research is that China and Hong Kong registered higher proportions of disengaged and very disengaged workers. However, unlike their counterparts in Australia and New Zealand, these workers were less likely to indicate that they thought of finding alternative employment. Further analyses of these data are currently underway.

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