ABSTRACT

Work-life balance is an area of increasing importance to both employees seeking to balance work and non-work roles and to organisations striving to improve their organisational effectiveness or competitive advantage (Greenhaus & Powell 2006; Gregory & Milner 2009). While there is no consistent definition of work-life balance, there are consistent themes which include: employees achieving an acceptable balance between their work and personal lives, employers providing a range of targeted work-life initiatives that enhance firm performance. Work-life initiatives are policies, programs and work practices that enable employees to reach an acceptable integration of their work and personal lives.

The business case for developing and implementing work-life balance programs has often been based on employee behaviour such as turnover, absenteeism and productivity, as well as employee attitudes such as organisational commitment. Contributing factors to organisational performance may be complex; therefore, direct empirical evidence of an association between work-life and bottom-line measures is somewhat limited (Beauregard & Henry 2009). However, offering a wide range of work-family practices has been associated with high levels of firm performance (Perry-Smith & Blum 2000).

Developing a reliable and valid measure for organisational work-life performance is an important step in valuing and encouraging employers’ implementation of work-life initiatives (Arthur & Cook 2003; Bardoel, De Cieri & Mayson 2008a). The process of scale development and validation is both a critical and complex issue for management researchers. Ensuring that an instrument measures what it purports to measure has important implications for its future use, particularly when relying on survey outcomes for decision making purposes. While recognizing the potential value of measurement, we acknowledge the inherent pitfalls and difficulties (Pfeffer 1997). For example, there can be a gap between the presence of measurable policies and uptake by employees in organisations (Abbott & De Cieri 2008; Harrington & James 2006).

Numerous scales have been developed to enable organisations to determine the effectiveness of their work-life programs (for a review see Bardoel et al. 2008a). These scales have focused on either higher-level constructs that measure organisational attitudes to work-life balance or indices of work-life practices. Few have directly utilised both approaches and none have determined whether there is an association between attitudes to work-life balance and the extent of the work-life initiatives offered by an organisation. Additionally, only one research group has published information regarding the development and psychometric properties of their instrument (Standards of Excellence Index (SEI): Harrington & James 2006). The lack of information regarding validation procedures in extant work-life scales does not mean that these instruments have not undergone a validation process, but rather that without this information, their ability to accurately measure their target constructs cannot be assessed.
The purpose of the current study is to develop and validate a scale (DeVellis 2003; Hinkin 1995) to measure work-life performance in Australian organisations. This study has been a multi-stage project that includes a literature review of current survey instruments used to measure work-life initiatives and focus groups with human resource professionals. From this process we developed a conceptual framework of measurement for organisational work-life performance that comprises four dimensions: planning and alignment, communication, supportive culture and leadership support and demonstrated value. The resulting survey was pilot tested using 12 subject matter experts. The survey was subsequently refined to a 69-item scale designed to measure organisational work-life performance.

In early 2009, this survey was administered to a national sample of 3073 Human Resource, Work-Life and Diversity professionals in organisations across Australia. To validate the scale, rigorous statistical assessment will be conducted using Classical Test Theory (exploratory factor analysis, reliability) to establish the underlying structure of the questionnaire and Item Response Theory (Rasch analysis) to refine the survey and obtain a more fine grained analysis of the survey items (Pallant & Tennant 2007). The survey will enable managers to measure company progress in establishing work-life integration and how these practices are connected to business outcomes. This information can be used to inform changes to organisational policy and practice.

INTRODUCTION

Work-life balance is an area of increasing importance to both employees who need to balance work and non-work roles (Gregory & Milner 2009) and to organisations seeking to improve their organisational effectiveness or competitive advantage (Bardoel et al. 2008a). This growing interest in work-life balance has been driven by demographic changes in the workforce and by increasing recognition that work-life issues are highly salient for many people (Bardoel, Moss, Smyrnios & Tharenou 1999; Spector et al. 2004). As in other developed countries, there has been a surge of work-family and work-life research in Australia and New Zealand (see Bardoel, De Cieri & Santos 2008b).

There is no consistent definition of work-life balance; however there are consistent themes, with three pertinent features evident in current definitions of work-life balance (Kalliath & Brough, 2008). These include the need for employees to achieve an acceptable balance between their work and personal lives, a need for employers to assist their employees by providing relevant programs, and that in providing flexibility to the employee, this process must enhance and not detract from the needs of the business. For the purposes of this study we adopt a definition of work-life balance that has been proposed by the Department of Consumer and Employment Protection in Western Australia: “Employers working constructively with their employees to put in place arrangements, which take into account the needs of the business as well as the non-work aspects of employees’ lives” (Barrera, 2007). This definition is broad enough to encompass the needs of employees without limiting the focus purely to individual responsibilities, while still allowing for the needs of the business. Importantly, it acknowledges that the successful implementation of work-life initiatives requires a commitment from both employer and employee.

We define work-life initiatives as those strategies, policies, programs and practices initiated and maintained in workplaces to address flexibility, quality of work and life, and work-family conflict (Arthur & Cook 2003; Bardoel et al. 2008a). A review of the work-life literature reveals that these initiatives can broadly be described as flexible working options (e.g. job share, telecommuting), leave options (e.g. study leave, paid parental leave) and life options (e.g. phased retirement, health & wellbeing support programs). Our research broadens the focus of previous studies from the tendency to rely on the presence of initiatives (i.e., a count of initiatives that have been implemented), to seeking to understand and measure the organisational context within which work-life initiatives are implemented and to measure the performance of organisational work-life initiatives. Hence, our study investigates the organisational work-life performance, which comprises four dimensions: planning and alignment, communication, supportive culture and leadership support and demonstrated value (Bardoel et al. 2008a).
The purpose of our research is to develop and validate a comprehensive questionnaire to measure organisational work-life performance; this paper focuses on the scale development stage of this research program. The benefits of such a survey will enable managers to measure progress towards the implementation of work-life initiatives and how these in turn are connected to the business strategy. This information can be used to inform changes to organisational policy and practice.

BACKGROUND

The work-life management area is increasingly recognized as an important aspect of management policy and practice (Poelmans 2005; Spinks 2005). In Australia, work-life initiatives such as part-time work, study leave and flexible working times and job share are the most likely work-life initiatives to be available in workplaces (De Cieri, Holmes, Abbott & Pettit 2005). A comparable range of practices has been reported in New Zealand with domestic/special leave, study leave, flexible hours and job sharing being the most the most common work-life initiatives available (EEO Trust 2006). Similarly, in North America and Europe there is increasing interest in ways to improve workplace flexibility and to better manage the tensions between work and other life demands for employees (Byron 2005; Greenhaus & Powell 2006; Rapoport, Lewis, Bailyn & Gambles 2005). There is also a rising awareness of work-life issues in developing countries (e.g. Joplin, Shaffer, Francesco & Lau 2003). However, we acknowledge that some aspects of work-life initiatives may work well in developed, ‘Western’, countries but be less applicable or require substantial adaptation in developing and transitional economies, such as in Asian cultural contexts (De Cieri & Bardoel 2009; Lewis, Gambles & Rapoport 2007).

The business case for developing and implementing work-life initiatives has often centered on employee behaviour such as turnover, absenteeism and productivity. Contributing factors to organisational performance may be complex; therefore, direct empirical evidence of an association between work-life and bottom-line measures is somewhat limited, albeit growing (Beauregard & Henry 2009; Perry-Smith & Blum 2000). Recent research has indicated that work-life initiatives are linked to measurable organisational outcomes such as lower voluntary turnover and improved retention rates (Boxall, Macky & Rasmussen 2003; Burud & Tumolo 2004; Forsyth & Polzer-Debruyne 2007). Overall, the business case for adopting work-life initiatives is both powerful and convincing (Kossek & Lambert 2005; Masi & Jacobsen 2003).

We propose that appropriate measurement of organisational work-life performance can be used to address and integrate not only business concerns but also social and moral concerns (Bardoel et al. 2008a; Gregory & Milner 2009; Lewis et al. 2007). We argue that measurement is an important tool for legitimizing the strategic contribution of work-life initiatives to organisational effectiveness; while the social and moral case for HRM, including work-life initiatives, may be self-evident, organisational decision makers are often reluctant to invest in work-life initiatives until clear benefits to the organisation are demonstrated. While employers and practitioners have shown much interest in measuring how organisational work-life initiatives affect organisational outcomes, this area has remained under-researched to date. We predict that, in the current context of global economic turmoil, the work-life initiatives will increase in salience for both employees and employers. We support the integrative approach to work-life (Bailyn, Fletcher & Kolb 1997), which proposes that effective management (and measurement) of work-life initiatives will provide benefits in both economic and social terms, for organisations and individuals. In this paper, we focus on the organisational perspective, by developing a measure of organisational work-life performance.

Developing a measurement tool at the organisational level. The measurement of organisational work-life performance has been advocated as an important step in valuing and encouraging the implementation of work-life initiatives (Bardoel et al. 2008a). Bardoel and colleagues investigated approaches to the measurement of work-life practices in Australian organisations. Their study revealed a substantial measurement gap; while companies used several indicators (e.g. turnover, absenteeism) to measure the effectiveness of their work-life initiatives, no adequate measurement tool currently exists that links work-life initiatives to financial
and non-financial outcomes. The development of a measurement tool would provide organisations with a means of assessing their progress in work-life matters and in determining their future direction with regards to work-life balance (Bardoel et al. 2008a).

A number of scales have been developed to enable organisations to determine the effectiveness of their work-life program (for a review see Bardoel et al. 2008a). These scales have usually focused on either higher-level constructs that measure organisational attitudes to work-life balance or focus on work-life practices offered by the organisation. Few have directly addressed both processes and none have determined whether there is an association between attitudes to work-life balance and the extent of the work-life initiatives that are offered by an organisation.

Only one research group to date has published information regarding the psychometric properties of their instrument. The Standards of Excellence Index (SEI) developed by Harrington and colleagues (see Harrington & James 2006) is a 73 item scale that is comprised of seven subscales. These seven subscales and their indicators were developed by experts in the field, both academics and practitioners of work-life balance and organisational development, from substantive theory. Each subscale was designed to measure relevant elements of the work-life process that was represented by the existence of policies along with evidence of accountability and cultural change. The seven subscales of the SEI were reported by to have good reliability with Cronbach’s alpha ranging from 0.70 to 0.91, although no other information regarding factor structure or validity was provided. Very strong, significant, positive correlations were observed between several subscales, namely: strategy and infrastructure ($r=0.81$), communication and infrastructure ($r=0.84$) and leadership and accountability ($r=0.82$). Such high correlations indicate strong conceptual overlap between the subscales and possibly redundancy, which suggests that further refinement of these scales could be considered. The general lack of information regarding validation of other work-life balance scales does not mean that these instruments have not undergone a validation process. However, it does mean that the psychometric properties of these instruments cannot be unequivocally assessed and that their ability to accurately measure their target constructs is still an open question.

Applying the assumptions of the resource-based view (Barney 1991, 2001) to the measurement of organisational work-life performance, Bardoel et al. (2008a) conducted qualitative research in focus groups with human resource professionals and managers from 27 medium to large organisations operating in Australia. This research explored what organisations are currently measuring with regard to work-life outcomes, how they are measuring it, and what they would like to measure. Integrating the practitioners’ perspective with academic literature, Bardoel et al. (2008a: 253) developed a comprehensive conceptual framework including four dimensions of organisational work-life performance:

- **Planning and alignment** i.e. extent to which comprehensive planning processes are used to establish the business case and align the work-life strategy with the organisation’s priorities;
- **Customisation** i.e. extent to which the work-life initiatives have been appropriately customized and developed to deliver outcomes for the specific organisation and individuals;
- **Supportive culture and leadership support** i.e. extent to which steps have been taken to build a culture to support work-life initiatives and demonstrate leadership commitment; and
- **Demonstrated value** i.e. extent to which the work-life initiatives are monitored to demonstrate value to all stakeholders and evaluated to identify opportunities for improvement.

These four conceptual dimensions provide the foundation for our development of a scale to measure organisational work-life performance.

**METHOD**

The development of the survey instrument comprised two stages. The first stage was the development of the framework by identifying relevant concepts, as detailed by Bardoel and colleagues (2008a). The second stage included an inductive and deductive process of collecting
and generating items. A third stage will comprise the validation process, in which the survey will be administered to a sample of managers.

**Stage one: Development of the conceptual framework.** Generation of survey domains was developed from focus groups and an extensive literature review. As explained by Bardoel et al. (2008a), focus groups were conducted with 27 practitioners to identify appropriate constructs to be included in a framework for measuring organisational work-life performance. The conceptual framework includes four dimensions: planning and alignment, customisation, supportive culture and leadership support, and demonstrated value.

**Stage two: Development of the survey instrument.** We developed the scale using a process of both deductive and inductive generation of scale items (DeVellis, 2003). First, we collected items from existing work-life balance instruments, and then devised additional questions to ensure that all four dimensions listed above were represented. All items were subjected to a rigorous content validity assessment and sorting process that served as a pretest, permitting the deletion of items deemed to be conceptually inconsistent (DeVellis 2003; Hinkin 1995). We refined the remaining items so that all items were worded in a consistent way.

We then administered the questionnaire to 12 subject-matter experts (Hinkin 1995), who were obtained from three areas: academics and doctoral students working in the field of Human Resources, postgraduate students who were enrolled in a ‘Managing work, family and life’ unit as part of a masters coursework program, and finally potential end-users of the survey (e.g. Human Resources managers). The objective of this process was to establish content validity and to ensure the four dimensions were adequately represented by the items. Experts were asked to assess the individual items for: clarity, relevance, ambiguity and redundancy. They were also asked to assess the survey as a whole and comment on its appearance, length and the sequence of items.

The resulting instrument contained four broad sections. The first section focused on higher order attitudes regarding organisational work-life performance and contained 69 items associated with organisational work-life initiatives across the four dimensions. The response options for these items ranged from 1 (strongly disagree) to 6 (strongly agree, with a ‘not applicable’ option).

The second section focused on specific work-life practices and was designed to evaluate the presence of established policies and the provision of work-life initiatives in that organisation. The items contained in this section are broadly described as: flexible working options, leave options and lifestyle options. Respondents were asked to indicate whether each of the initiatives were available in their organisation, and the level of employee uptake.

In addition to the work-life instrument under development, several additional surveys were administered for the purposes of establishing convergent validity (Family-Supportive Work Environment Scale; Allen 2001), discriminant validity (High Performance HR Practices: Bhattacharya, Gibson & Doty 2005) and criterion validity (Perceived Organisational Performance: Delaney & Huselid 1996). We propose that our work-life scale and the Family-Supportive Work Environment Scale measure a similar underlying construct (work-life flexibility) and therefore we expect a moderate, positive correlation between the two scales. We also propose that the work-life scale measures distinct set of practices that form a separate concept from other HR practices and therefore we only expect a very weak correlation between the work-life scale and the High Performance HR Practices Scale. Finally, our proposal that work-life flexibility contributes positively to organisational performance should be manifest in a moderate positive correlation between the work-life scale and the Perceived Organisational Performance scale.

The third section focused on demographic issues in order to elicit detailed information regarding the participating organisation (e.g. industry, sector, size, organisational performance) and workforce characteristics (e.g. age, gender, employment categories). The final section presented three open-ended questions to elicit comments on work-life initiatives and challenges.
Stage three: survey validation. In early 2009, the survey was mailed to 3,073 managers who are primarily responsible for the work-life balance program in their organisation. The sampling frame was a list of managers whose professional role was Human Resource, Work-Life or Diversity Manager. The list was constructed to ensure only one representative from each organisation was included. The sample included organisations from all states of Australia, all sectors with at least 50 employees.

The survey responses will be analysed in two stages using techniques from both Classical Test Theory and Item Response Theory. The initial stage of the analysis will be to refine the instrument by assessing item characteristics and the underlying latent structure of the survey using descriptive statistics, intercorrelations, exploratory factor analysis and reliability analysis. In the second stage the refined instrument will be subject to Rasch analysis as a confirmatory procedure but also to conduct a more in-depth analysis of the psychometric properties of the instrument. Rasch analysis will enable us to: assess the dimensionality of the instrument and investigate the fit of individual items and respondents to the Rasch model. It offers the advantage of being able to determine: whether respondents are using the response format consistently and logically; how well targeted the instrument is to the population and to detect item bias (Pallant & Tennant 2007). The detection of item bias (known as differential item functioning) is particularly important as some items might function differently in different sub-groups. An assessment of differential item functioning allows researchers to ascertain whether variations in item functioning result from variations in the level of a latent trait under investigation rather than another trait related to the population itself, such as company size or industry.

DISCUSSION AND CONCLUSION

Building on and extending previous studies, this research contributes to the work-life literature by developing a measure of organisational work-life performance. This is an important step in valuing and encouraging employers' implementation of work-life initiatives (Arthur & Cook 2003; Bardoel et al. 2008a). The process of scale development and validation is both a critical and complex issue for management researchers. Ensuring that an instrument measures what it purports to measure has important implications for its future use, particularly when relying on survey outcomes for decision making purposes. While recognizing the potential value of measurement, we acknowledge the inherent pitfalls and difficulties (Pfeffer 1997). For example, there can be a gap between the presence of measurable policies and uptake by employees in organisations (Abbott & De Cieri 2008; Harrington & James 2006). Hence, the multiple sections of our survey seek to provide additional analysis such as a gap analysis between the presence of measurable policies and employee uptake. Further, our survey enables analysis of relationships between work-life initiatives and organisational outcomes. This project addresses several limitations of previous work-life research by applying rigorous methods to develop a comprehensive scale to measure organisational work-life performance. The next step for this research program is to complete our validation of this scale.

This research holds a range of implications relevant to theory, research and practice related to organisational work-life performance. For scholars, the framework developed by Bardoel et al. (2008a) and the development of this scale provide a conceptual foundation for research and empirical testing. The development of an evidence base through rigorous research is an important role for scholars in any field of applied research (Rousseau 2006). For employees and society in general, work-life measures should present an opportunity to voice their concerns and interests. Such measurement aims to hold employers accountable for initiatives that address the work-life needs and interests of their employees. We predict that, in the context of global economic uncertainty, there is a crucial need to provide employee-focussed and supportive management practices, including work-life initiatives, for the benefit and sustainability of employees and the organisation (Guest 2002). However, this may present some conflict for managers who are also under pressure to control costs and increase efficiencies, and are required to report how work-life initiatives contribute to organisational performance (Boselie, Dietz & Boon 2005). Reliable and valid measurement of work-life initiatives and their performance provides a tool that should help to reconcile this conflict. We propose that our framework and scale will provide useful tools for...
scholars and practitioners seeking to measure and understand the contribution and impact of work-life initiatives. Finally, we would hope that the rigorous process we followed for developing the measure of organisational work-life performance could also be used as a template for developing other measures of organisational performance, for example, organisational health.

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