



AUSTRALIAN  
SCHOOL OF BUSINESS™  
THE UNIVERSITY OF NEW SOUTH WALES

# Leadership, Culture and Management Practices of High Performing Workplaces in Australia: The High Performing Workplaces Index



A study funded by the  
Department of Education, Employment and Workplace Relations

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Society for Knowledge Economics

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## Foreword



The Productivity Commission states in the appendix of its 2009-10 Annual Report *Recent Developments in Australia's Productivity* that:

*Whatever the measurement challenges, an increase in overall productivity depends on the performance of individual firms, and on the competitive pressures that results in better performing firms and industries prevailing over others.*

This landmark report ***Leadership, Culture and Management Practices of High Performing Workplaces in Australia: The High Performing Workplaces Index*** provides insights and evidence gathered from over 5600 Australian employees of what in our own everyday work experience is obvious; the better the capabilities and practices of the managers we work for, the better the performance of our organisations and the outcomes we produce.

The study shows that leaders in higher performing organisations prioritise people management as a key priority, involve their people in decision making processes; are more responsive to customer and stakeholder needs; encourage a high degree of responsiveness to change and learning orientation, and enable their staff to fully use their skills and abilities at work.

High performing organisations are not just much more profitable and productive, they also perform better in many important “intangible attributes”, such as encouraging innovation, leadership of their people, and creating a fair workplace environment.

This report is a call to action. It provides clear evidence that improving Australia’s productivity – or effectiveness at work and performance of our workplaces – is and will be largely a function of our commitment to develop leadership and management capabilities across all organisations in our economy.

It is time to invest in this vital and undervalued lever of Australia’s productivity performance.

The Society for Knowledge Economics would like to thank the Department of Education Employment and Workplace Relations for the opportunity to conduct this project, along with the wonderful team of academics, led by Dr. Christina Boedker and the University of New South Wales, who collaborated across their traditional areas of discipline to create a rare and holistic view of what distinguishes high performing organisations from the rest.

Yours Sincerely,

A handwritten signature in cursive script that reads "Steve Vamos".

Steve Vamos  
President, Society for Knowledge Economics

## Executive Summary

People at work are the engine of Australia's productivity performance. The workplace is at the heart of the productivity debate because it is the performance of people at work that determines much of the economic performance and output rates of the Australian economy.

Not since the *1995 Karpin Report* and *Australian Workplace Industrial Relations Survey (AWIRS)* has Australia undertaken a comprehensive study of the leadership, culture and management practices that prevail in Australian workplaces.

This research report aims to open up the 'black box' of management and provides insights into the leadership, culture and management practices that higher performing workplaces deploy and benefit from. It also illustrates the productivity and profitability benefits that accrue to higher performing workplaces. It is part of a 2.5 year project funded by the Department of Education, Employment and Workplace Relations to the Society for Knowledge Economics in December, 2009.

Since March, 2010, a cross-disciplinary team of researchers from the University of New South Wales (UNSW), Australian National University (ANU), Macquarie University and Copenhagen Business School (CBS) has been working with 78 Australian organisations<sup>1</sup> to identify and analyse what constitutes a high performing workplace.

The participating organisations are from the Australian services sector, which is a large and growing part of the Australian economy, contributing 76.4 percent of Industry Value Added to gross domestic product (GDP). Services based organisations (e.g. law firms, advertising companies, accounting firms, consulting firms, employment agencies etc.) derive the majority of their wealth and economic returns from intangible assets. These organisations have comparatively few tangible assets and their balance sheets are less helpful in assessing their performance and value. Measurement of their intangible assets, as presented in this report, is therefore an important way to gain insights into the performance of these organisations.

5661 employees from across four levels of employees (senior executives, middle management, frontline management and non-managerial employees) volunteered their time and shared their views and opinions. Employee response rates ranged from 96% to 7%, and averaged at 50.5% per organisation.

In addition, Chief Financial Officers (CFO), Human Resource Managers (HRM) and Chief Information Officers (CIO) contributed detailed management and performance data.

The size of the participating organisations ranged from 18 to 1730 full time employees (FTEs). The majority of the organisations (88%) had less than 500 FTEs; over half of the organisations (67%) had less than 200 FTEs.

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<sup>1</sup> One organisation has been removed because it was an influential outlier. The number of organisations incorporated in the analyses presented in this report is 77. See section 2.11 for details.

## The High Performing Workplace Index

Organisational performance was assessed using 18 performance measures in six categories (see figure 1 overleaf<sup>2</sup>). Five of these categories assessed the performance of the organisations' intangible assets. One category assessed the organisations' financial and productivity performance.

The 18 performance measures were used to calculate the High Performing Workplace (HPW) Index<sup>3</sup>, which identifies the higher and lower performing organisations in the sample. The two groups were defined by taking one standard deviation *above* the mean of the HPW Index and 1 standard deviation *below* the mean of the Index. This resulted in 12 organisations (15.58% of the sample) in the HPW category and 13 organisations (16.88%) in the Lower Performing Workplace (LPW) category.

The analyses that follow below detail the results and performance differences between the two groups of organisations. It shows that HPWs consistently outperform the rest both in regards to managing their intangible assets and their productivity and profitability.

HPWs are more [Productive](#) than LPWs:

- Productivity measures the efficiency with which inputs are converted into outputs. The measure of productivity used in this study is Total Factor Productivity (TFP) for individual firms, and is defined as the ratio of output to a weighted sum of inputs. TFP was calculated using a Cobb-Douglas approximation based on cost shares in an equivalent way to the Australian Productivity Commission's official calculations of national industry level productivity. The work is pioneering since not many studies have measured productivity in service based industries.
- The study finds that HPWs have 12% higher TFP than LPWs, when ranked in terms of their intangible asset performance.
- This means that HPWs are more efficient at converting input (e.g. the cost of assets, such as human capital) into outputs (such as revenue charged for services provided). For every \$1 dollar of investment made, HPWs generate 12 cents more in revenue than LPWs.

The [Financial Differences](#) between HPWs and LPWs, when ranked in terms of their intangible asset performance, are significant. For example:

- LPWs have an average profit margin ratio<sup>4</sup> of 5.44% whilst HPWs have an average profit margin of 15.63%.
- In other words, the profit margins of HPWs are nearly three times higher than LPWs.
- HPWs are better at achieving their stated financial targets than LPWs by 34%.

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<sup>2</sup> The measures represented in Figure 1 have been scaled from 0 to 100. Likert scales (1-7) were used for the majority of the questions in the study, although there were exceptions to this, specifically with the financial and productivity data, which were obtained from the CFO

<sup>3</sup> In calculating the HPW Index, the profit margin and productivity data have been adjusted to take into account industry sub-sector differences. Law firms, for example, pay partner salaries out of shareholders equity (not the profit and loss account). The adjustments take into account such differences and assists with comparisons across industry sub-sectors.

<sup>4</sup> The profit margin ratio is calculated as earnings before interest and tax divided by revenue. It shows how much profit an organisation generates from each dollar of revenue.

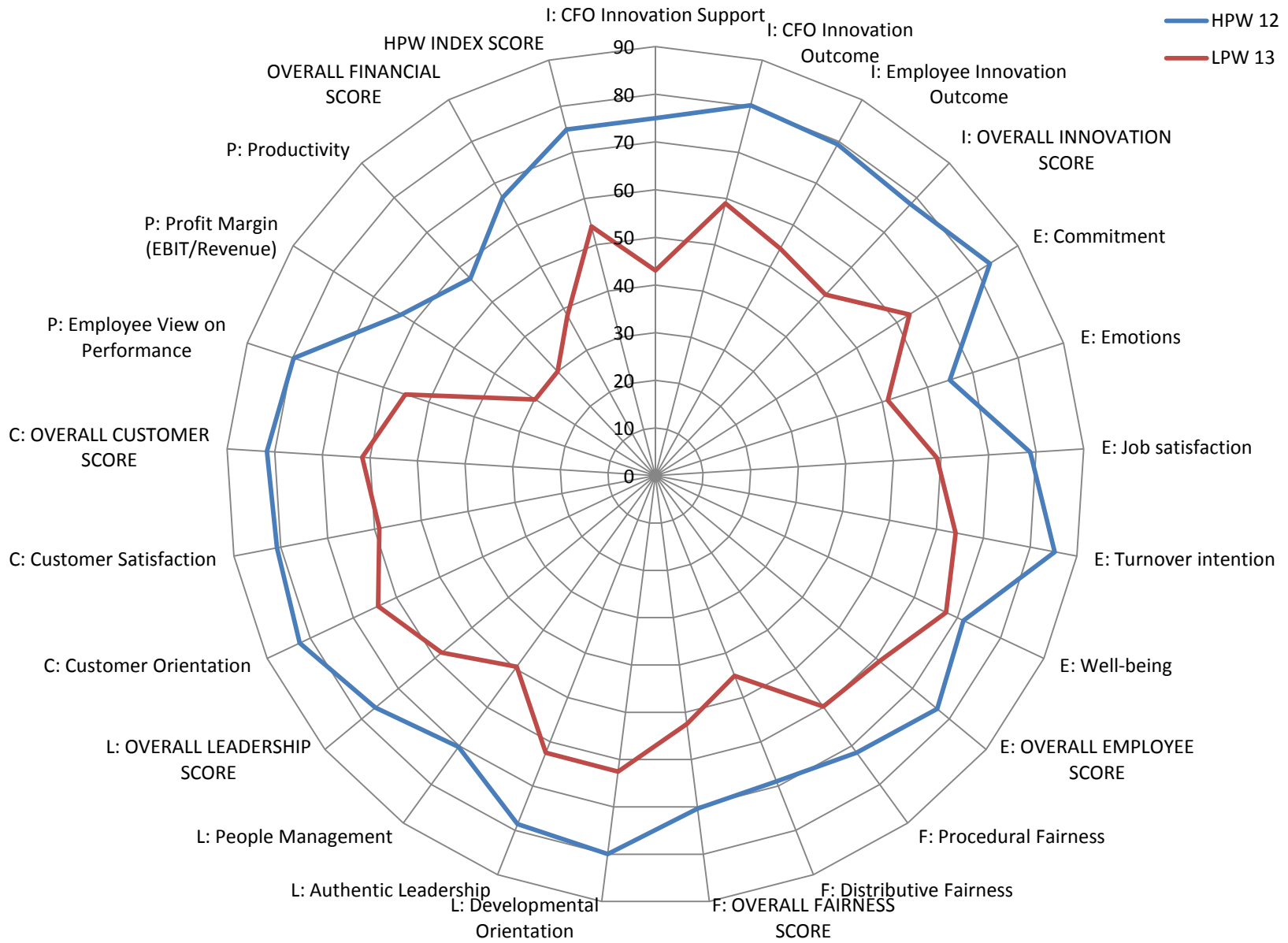


Figure 1: High Performing Workplaces: 18 Performance Measures across 6 Categories (scaled 0-100)

HPWs also outperform LPWs on their [Innovation Performance](#):

- HPWs have higher levels of innovation outputs than LPWs across all four innovation categories:
  - 1) Services and products (25.3% higher).
  - 2) Operational processes to produce services or products (29.3% higher).
  - 3) Managerial structures and strategies (2.9% higher).
  - 4) Marketing methods (21.2% higher).
- HPWs generate more new ideas than LPWs (28.1% higher); they have in place more mechanisms (e.g. town hall meetings, innovation zones) for capturing ideas from employees (19% higher); they also have in place more formal processes for systematically assessing and responding to ideas from employees (5.1% higher).
- HPWs are more successful at transforming ideas into new products/services, processes etc. (17.4% higher); they also dedicate significantly more resources to fund new strategic initiatives (46.9% higher).

HPWs offer better [Employee Experiences](#) for their staff and managers and benefit from:

- Lower levels of employee turnover (23.3%).
- Higher levels of job satisfaction (22.7%) and employee commitment (23.2%). Employees in HPWs are more involved with their organisation, exert extra effort in their jobs, and are more likely to tell their friends that their organisation is a great place to work.
- Lower levels of anxiety, worry, fear, depression and feelings of inadequacy. 1 in every 4 respondents (25%) in LPWs feels depressed about their workplace versus 1 in every 7 (15%) in HPWs.
- Higher levels of positive emotions, such as feeling valued, proud, cheerful, optimistic and loved. 68% of respondents in HPWs feel proud about their workplace and 64% feel valued, versus 43% and 47% respectively in LPWs.

HPWs have higher levels of [Fairness](#) than LPWs:

- Fairness, in regards to the distribution of rewards (relative to a person's efforts, contributions and responsibilities), is 30.3% higher in HPWs than in LPWs.
- Fairness, in regards to the fair implementation of company procedures and policies by managers, is 12% higher in HPWs than in LPWs.

Supervisors and managers in HPWs outperform those in LPWs on their [Leadership](#) capabilities. Leaders in HPWs:

- Spend more time and effort managing their people than leaders in LPWs (29.3% higher).
- Have clear values and 'practice what they preach' (25.7% higher).
- Give employees opportunities to lead work assignments and activities (22.9% higher).
- Encourage employee development and learning (21.1% higher).
- Welcome criticism and feedback as learning opportunities (20.4% higher).
- Give increased recognition and acknowledgement to employees (19% higher).



- Foster involvement and cooperation amongst employees (18% higher).
- Have a clear vision and goals for the future (17.9% higher).
- Are innovative and encourage employees to think about problems in new ways (16.5% higher).

Customer Experiences are better in HPWs than LPWs:

- HPWs exert more effort trying to understand customer needs than LPWs (19.4% higher). HPWs are curious to learn new things from customers and invest additional time and resources to this effect.
- HPWs are better at acting on suggestions and feedback received from customers (17.1% higher).
- HPWs do whatever it takes to create value for customers, for example by investing more resources in responding to customer needs and by exerting more effort to better service customers (18.4% higher).
- HPWs are better at achieving their customer satisfaction goals than LPWs (24.8% higher).

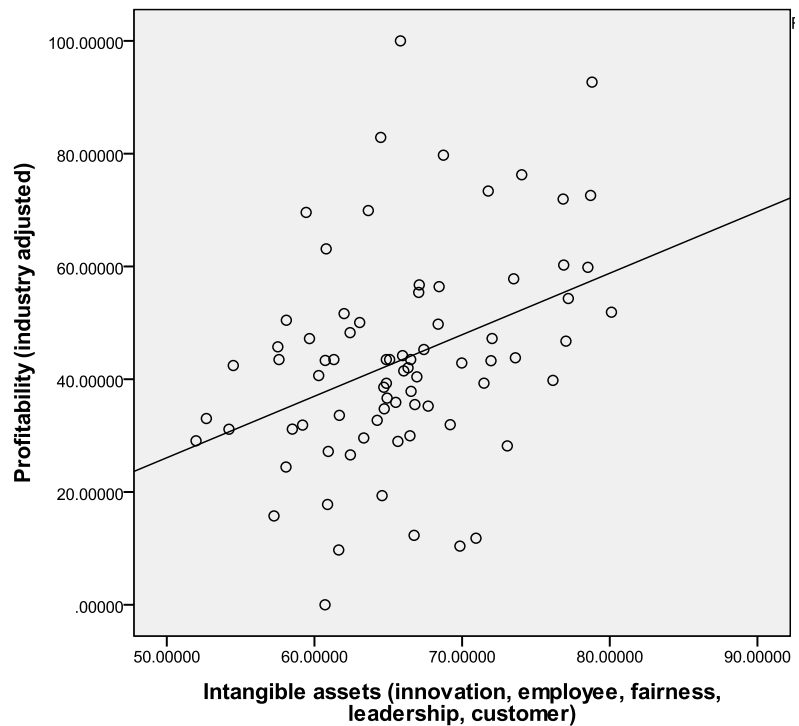
### Financial Benefits and Consequences of Being a HPW and a LPW

A more detailed analysis shows that there are financial benefits and consequences associated with being a HPW and a LPW. Indeed, the profit margin difference between HPWs and LPWs is large and averages AU\$8.8 million dollars per organisation, or \$40,051 per full time employee.

In other words, a LPW could potentially increase its profit margin by up to AU\$8.8million (on average) if it were to successfully migrate into the HPW category.

Figure 2 illustrates the co-variance<sup>5</sup> in the performance of the participating organisations' intangible assets and their profit margin results.

It suggests that any organisation wishing to transition from a LPW to a HPW would have to improve the management, development and measurement of its intangible assets.



**Figure 2: Correlation of Intangible Assets and Profit Margin**

<sup>5</sup> The correlation coefficient for the intangible assets and industry adjusted profitability data was 0.376\*\* (p<.01); it was 0.347\*\* (p<.01) for the intangible assets and unadjusted (raw) profitability data.

## What Management Practices do HPWs Deploy and Benefit From?

The study also sought to identify the management practices that HPWs deploy and benefit from. This was done by correlating management practices (from across accounting, human resources management, information and communication technology, etc.) with the HPW Index. Some key findings as to the prevailing management practices of HPWs include:

- Higher levels of responsiveness to changes in stakeholder and customer networks: Responsiveness to change is enabled by external connectedness with customers, suppliers, partners, etc. It is made possible by management practices such as: the measurement and reporting of stakeholder relationships; interactive use of accounting controls (whereby creative thinking is encouraged and emerging opportunities in the market place are continuously spotted and debated); diagnostic use of accounting controls (whereby deviations from business plans and stated goals are continuously monitored and detected); and strategic alignment (whereby employees have a clear understanding of their individual roles and responsibilities relative to stated goals).
- Higher levels of employee participation in decision making processes: This is enabled by management practices such as: employee participation in strategy formulation, implementation and monitoring; employee participation in target setting and budgeting; team based work structures; cross-disciplinary and team based projects; and higher levels of employee skills utilisation. Lower levels of conflict and tension was also identified as a characteristic of HPWs.
- Higher levels of behavioural and skills flexibility in employees: This is enabled by practices such as: on the job learning; rotation of job tasks; mentoring and coaching programs; cross-training programs; high levels of learning orientation; and investment into training that helps employees do their job better.
- Effective use and quality of information, communication and technology (ICT): This is enabled by practices such as: strong alignment between business and ICT strategy; and strategic and operational use of ICT.
- Excellence in attracting and retaining high quality people: This relates to management practices such as: talent management systems; extra efforts and resources invested into the recruitment and selection of new staff; higher wages than competitors; and employee performance evaluations.

## Culture and Values in High Performing Workplaces

The cultural archetypes of the participating organisations were assessed. The results show that HPWs exhibit more than one culture type. Indeed, three out of four cultures have a positive and significant correlation with the HPW Index. These are the *results*, *people* and *change* oriented cultures.

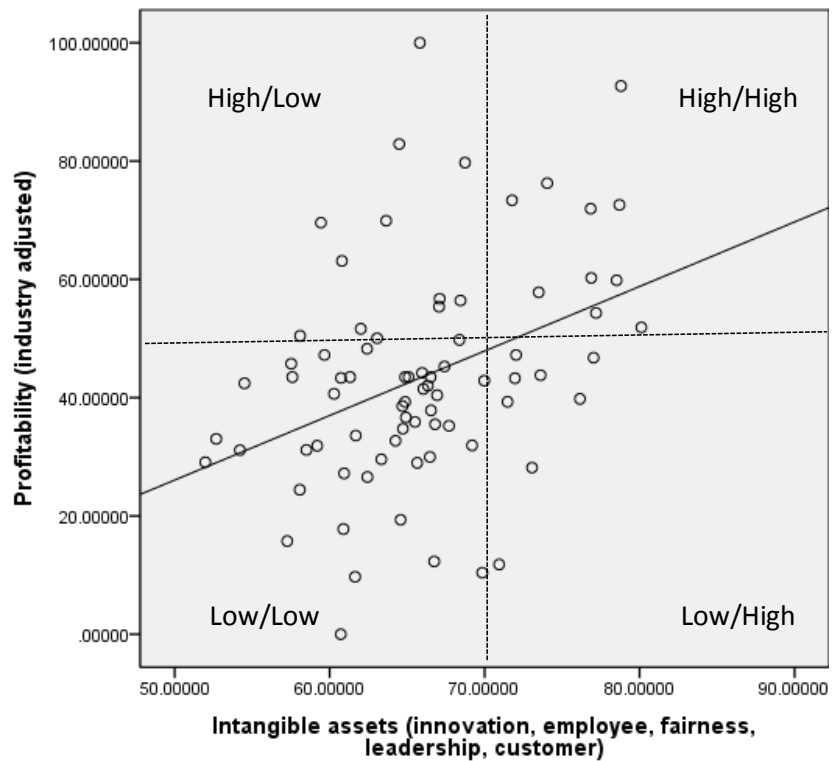
This suggests that HPWs are characterised by a set of values and shared beliefs where people welcome and seek to introduce change and innovation, where leaders care for their employees and foster collaboration, and where there is an ambition to deliver results and a focus on achieving goals. Interestingly, a *control* culture has a negative and significant association with the HPW Index.

## Ways Forward

The next step in the project is to draw on the many detailed analyses that follow in this report to design intervention strategies that can assist a smaller group of the participating organisations to lift their workplace performance and improve the management of their intangible assets and productivity and profitability.

One possibility for doing so is to classify the organisations according to their position of the profit margin / intangible asset chart (see figure 3).

This could produce four groups of organisations, as follows: 1) organisations that score well on both intangibles and profit margin are likely to be well managed and stand a good chance of maintaining their superior performance in the years to come; 2) organisations that score low on both axis are clearly performing below their potential; 3) organisations that score high on profit margin but low on intangibles may not sustain their financial performance in the years to come; 4) organisations that score high on their intangibles but low on profit margin may well see improved financial performance in the years to come. Whilst this type of analysis can be an indication of an organisation’s future performance, these results should be interpreted with some caution as other factors will also play a role in determining workplace performance (e.g. competition in the market place, legislative changes, and other environmental changes).



**Figure 3: Correlation of Intangible Assets and Profitability (industry adjusted)**

Going forward, consultants will assist with such analyses and design intervention strategies to be pioneered and co-developed with a smaller group of participating organisations over a 12 month period. We look forward to sharing the results of this next phase of the project in our third and final report.

## Authors and Research Team



### **Dr Christina Boedker**

*Senior Lecturer, School of Accounting, Australian School of Business, UNSW*

Christina is the lead researcher on the HPW project. She was the acting CEO of the SKE from 2007-09 and has led 12 research projects for the SKE. Her research focuses on practice theory in the areas of strategy and accounting controls, innovation and creativity, emotionality and accounting, measuring and reporting intangible resources, and leadership, culture and management practices for high performing organisations.

Christina has been awarded the 2009 Emerald/EFMD Outstanding Doctoral Research Award; two Emerald Literati Network Awards for Research Excellence (2006, 2009); Saunders Harris' Prize for Outstanding Academic Achievement; the UK Advertising Standards Authority Award; the Mindshift Consulting Group Prize; the Carlson Companies' Award; the MGSM's Awards for Competitive Intelligence and HRM. She also received an Honourable Mention for Outstanding Achievement in Research and Development by the Business and Higher Education Roundtable in 2008.

Christina was born in Denmark. Prior to coming to Australia 10 years ago, she worked as department head of operations at a US firm for 6 years. She did her undergraduate (1<sup>st</sup> class honours) in Economics in the UK, and holds a Master degree in Accounting, an MBA in Financial Management, and a PhD in strategy and accounting controls.



### **Professor Richard Vidgen**

*Head of School of Information Systems, Technology and Management, Australian School of Business, UNSW*

Richard's current research interests include the study of high performing agile and lean software teams, agile governance, the application of complex adaptive systems theory to organisations, and the evaluation of Internet quality (e.g., e-commerce sites, knowledge-sharing applications, intranets).

Richard has extensive experience in designing and running online surveys. He works with partial least squares (PLS) for data analysis and modelling.

Richard has produced more than 140 publications, including two co-authored books on information system development and research papers in journals such as Information Systems Research, Information & Management, the Information Systems Journal, and the European Journal of Information Systems.

Following fifteen years working in the IT industry, Richard studied for a PhD in Information Systems at the University of Salford. He then spent 12 years at the School of management, University of Bath, UK, where he was a Professor of Information Systems.

Richard is a Visiting Fellow at the EngD Centre in Systems at the University of Bristol.



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*Economics, Research School of Social Sciences, Australian National University*

Kieron's three main current areas of research are: the economics of organisations, in particular (i) management decision-making and authority structures; (ii) spatial competition and location theory; and (iii) political economics and voting theory. Techniques employed in Kieron's research include incentive theory, hierarchy theory, discrete choice theory, Bayesian decision making and uncertainty, graph theory and the numerical simulation of complex systems. He applies microeconomic theory to understanding situations that are more complex than can be described by a traditional price mechanism. Kieron holds a PhD Economics, Australian National University, a Master of Arts Honours Mathematics, Waikato University, and a Bachelor of Arts Mathematics, Waikato University. He is the Associate Dean (Higher Degree Research) at ANU.



### **Associate Professor Julie Cogin**

*Head of School of Organisation and Management, Australian School of Business, UNSW*

Julie is an Associate Professor at the Australian School of Business, UNSW. She has extensive experience in researching high performing workplaces and human resource management practices that lead to superior firm outcomes. Recently, Julie led a major research project with a large multinational corporation investigating culture, leadership and management practices on individual and firm level outcomes. Julie has written two books, several book chapters and has published in prestigious international journals. She has been successful in securing several national, industry and university grants. Julie has received the 2008 Australian Teaching and Learning Council national citation for contributions to teaching in tertiary education sector; the 2007 UNSW Vice Chancellor's award for teaching excellence; and the 2006 Australian & New Zealand Academy of Management best HRM research paper.



### **Professor Jan Mouritsen**

*Department of Operations Management, Copenhagen Business School, Visiting Professor, UNSW*

Jan brings extensive experience in measuring intellectual capital, innovation, management technologies and controls and high performing work organisations. He is working with the research team on the literature reviews, the design, analysis and collation of data and the final recommendations including the guideline. Jan brings strong linkage with European researchers. Jan was the lead researcher on the Danish Intellectual Capital project, where over 100 Danish organisations produced Intellectual Capital statements over a 5 year period, the largest IC project ever. The project was sponsored by the Danish Minister of Science, Innovation and Technology. It resulted in the Danish Guideline on Intellectual Capital Statements. Jan received a medal from the Danish Queen acknowledging the contribution of his work to the Danish economy. Jan led the project team, research staff and PhD students. Jan has published in a large variety of accounting and business management journals. Jan is often visiting Australia to partake in this project.



### **Mark Runnalls**

*Project Manager and Lecturer, Department of Accounting & Governance, Macquarie University*

Mark Runnalls is the lead project manager on the project. He is a qualified Prince2 project manager. During the last two years, Mark has worked on projects for organisations such as DEEWR, the Victorian Department of Innovation and IBSA. Prior to that, he spent twelve years as a management consultant and Partner with Ernst & Young where he worked with Australian and international clients in the area of technology, innovation and risk management. Mark is a lecturer at Macquarie University. Mark holds the Prince2 and Managing Successful Programs qualifications, in addition to an MBA from Imperial College, London, and a Bachelor of Arts (honours) from CCAT. Mark is a PhD Candidate at UNSW. His research focuses on the relationship between management accounting controls and emotionality.

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- Lisa Paul, Secretary, DEEWR
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- Jennifer Taylor, Former Group Manager, Tertiary Frameworks Group, DEEWR
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- Richard Millington, Former Director, Workforce Innovation Section, DEEWR
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- Astrida Uptis, Director, Workforce Innovation Section, DEEWR
- Christopher Vas, Assistant Director, Workforce Innovation Section, DEEWR

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To gather input into this study and evaluate the research observations and recommendations, the SKE has created a Steering Committee, whose members are listed below. We are grateful for their support.

- Karin Adcock, Chief Executive Officer, Pandora
- Matthew Ayres, Chief Strategy & Global Innovation Officer, Katerva Global Challenge
- Iain Birks, Chief Executive Officer, Australian Information Industry Association
- Dr. John Buchanan, Director, Workplace Research Center, Sydney University
- Professor Alec Cameron, Dean, Australian School of Business, UNSW
- David Caspari, Vice-President, HP Enterprise Services, South Pacific
- John Colvin, Chief Executive Officer, Australian Institute of Company Directors
- Merran Dawson, Partner, Advisory Services, PricewaterhouseCoopers (PwC)
- Ruth Dunkin, Director, Policy, Business Council Australia
- Simon Edwards, Head of Government and Industry Affairs, Microsoft Australia
- Geoff Fary, Assistant Secretary, Australian Council of Trade Union
- Associate Professor Peter Gahan, Department of Management, Monash University
- Professor Roy Green, Dean, School of Business, University of Technology Sydney.
- Sally Herman, Former General Manager, Corporate Affairs & Sustainability, Westpac Banking Corporation
- Justin Hill, Manager, Policy and Program Innovation, Enterprise Connect, DIISR
- Rosemary Howard, Executive Director, Australian School of Business, UNSW
- Narelle Hooper, Editor, Boss Magazine
- Amanda McCluskey, Head of Sustainability and Responsible Investment, Colonial First State
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- Clare Payne, Director, Integrity Office, Macquarie Bank
- Professor Richard Petty, President, CPA Australia
- Heather Ridout, Chief Executive Officer, Australian Industry Group
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- Tim Sheehy, Chief Executive Officer, Chartered Secretaries Australia
- Robin Shreeve, Chief Executive Officer, Skills Australia
- Pauline Vamos Chief Executive Officer, The Association of Superannuation Funds of Australia
- John Vines, Chairman, Innovation & Business Skills Australia
- Jon Williams, Partner, PricewaterhouseCoopers
- Peter Wilson, National President, Australian Human Resources Institute
- Bill Withers, Chairman, Acquire Technologies

## Background

This project was funded by the Department of Education, Employment and Workplace Relations to the Society for Knowledge Economics (SKE) in December, 2009. Since March, 2010, the research team has been working with 78 Australian organisations to identify the leadership, culture and management practices that characterise high performing workplaces. Following the initial diagnostic phase and the development of the HPW Index (as presented in this report), the team and a selected group of consultants will implement a series of intervention strategies designed to lift workplace performance with a smaller group of organisations. At the conclusion of this, the participating organisations will again undertake assess their capabilities and performance using the HPW Index diagnostic to establish any performance improvements and changes resulting from the interventions.

The project is producing three publications:

- A literature review of HPW and three diagnostic Instruments (published, see Boedker *et al.*, 2011).
- The results of the diagnostic phase, including the HPW Index (this report).
- A guideline for HPW (forthcoming following the interventions phase).

This project follows the SKE tradition of industry partnering and collaboration. The collaborating partners on this project are the:

- Department of Education, Employment and Workplace Relations
- Society for Knowledge Economics
- University of New South Wales
- Australian National University
- Copenhagen Business School
- Macquarie University

The project follows previous collaborative industry research projects and research reports published by the SKE, specifically:

- Boedker C., Cugin J., Langford P., Meagher K., Mouritsen J., Runnalls M., Sheldon P., Simmons S. and Vidgen R. (2011), *Leadership, Culture and Management Practices of High Performing Workplaces in Australia: Literature Review and Diagnostic Instruments*, funded by the Department of Education, Employment and Workplace Relations, published by the Society for Knowledge Economics, January, 2011.
- Society for Knowledge Economics (2009), *Leading Australia to More Innovative, Productive and Fulfilling Workplaces—The Role of Government*, prepared on behalf of the Department of Education, Employment and Workplace Relations, November, 2009.
- Society for Knowledge Economics (2009), *Workplaces of the Future*, for the Department of Education, Employment and Workplace Relations, for the Workplaces of the Future Forum, Melbourne, July, 2009.
- Society for Knowledge Economics (2005), *Intangible Drivers of Organisational Productivity and Prosperity—International Trends and Developments in Extended Performance Management, Measurement and Reporting*, prepared on behalf of the Department of Finance, February, 2007.

## 1. Introduction

Australia's rate of economic growth is determined by three supply side factors, *population, participation* and *productivity*, also known as the 3 Ps. The Treasury Department's (2010) most recent Intergenerational Report projected that Australia's rate of economic growth will average 2.7 per cent a year over the next 40 years, down from 3.3 per cent a year over the past 40 years. Whilst over the past 40 years, the first two Ps, population and employment participation, have made a net positive contribution to economic growth, over the coming 40 years they are projected to make a net negative contribution. Population growth is expected to slow slightly (with birth rates forecasted at 1.9 babies per female), and the participation rate is expected to fall along with an ageing population. This means that the demand for labour will outstrip supply.

As a result the 3<sup>rd</sup> P, *productivity*, will have a much greater impact on the rate at which Australia grows and the extent to which the Australian population enjoys rising living standards in future decades.

The workplace is at the heart of the productivity debate because it is the performance of people at work that determines much of the productivity performance and output rates of the Australian economy.

Traditionally, interventions to increase workplace productivity have been undertaken in three ways:

- Investments into training and skills development.
- Infrastructure development.
- Regulatory interventions, such as industrial relations reform and tax incentives.

This report suggests that to lift Australian productivity in forthcoming decades, policy makers and others need to direct much more policy focus and effort at the workplace level. Specifically, opportunities exist to improve the management and leadership skills of Australian leaders and to better understand the impacts and consequences of these for Australian productivity and Australian workers.

In other words, a fourth and important policy lever required to lift workplace productivity is the leadership, culture and management practices deployed by leaders and managers across Australian workplaces. The importance of workplace productivity was identified by the then Deputy Prime Minister Julia Gillard following a *Workplaces of the Future Forum*, in July, 2009:

*"last month's forum acknowledged the need to unlock the final piece of the productivity puzzle and that over the coming months and years we will be looking at ways of embedding change through workplace relations, innovation and leadership practices in workplaces".*

She went on to explain:

*"...to truly unlock the productivity of our nation ... we need workplace leadership and the requisite*



*cultures and skills that will build upon the foundations of the Fair Work Act to encourage innovation, employee engagement and cooperation in our workplaces.*<sup>6</sup>

Not since the 1990s has Australia, as a nation, paid co-ordinated attention to workplace system designs and management practices. Government initiatives in the 1990s included the *Karpin Commission Report* (1995), the *AWIR Surveys* (1995, 1990), and the *Best Practice Demonstration Program* (1997). Yet, not since 1995 has Australia conducted a national workplace survey and little co-ordinated effort has been made put in place nationwide workplace productivity improvement programs.

Importantly, in designing this study, we have sought to hear the views of Australian employees, since it would seem they are best placed to assess the performance of their workplaces and capabilities of their leaders. This is likely to be the most detailed Australian study that attempts to give voice to Australian employees since the 1995 AWIRS.

The study focuses on the Services sector of the Australian economy. This is a non-tariff industry sector. Much work on high performing workplaces, and also recent studies into management practices in Australia e.g. *Management Matters*, has focused on manufacturing organisations. Now is a good time to enhance our knowledge of the economic performance of the services sector, which is a large and growing sector in the Australian economy. Organisations in this sector primarily derive their economic wealth from intangible resources, such as people, ICT, relationships with customers and other stakeholders, and innovation activities, such as new services, processes, business models and structures. Whilst other sectors also derive wealth from intangible resources, intangible resources are of particular significance to knowledge-intensive organisations in the services sector.

The study makes a contribution to the growing literature on HPWs by extending the focus to include a wider range of disciplinary areas beyond the human resources management department, which traditionally has been the main focal point of HPW studies. To this effect, the research team has worked with CIOs, CFOs, Chief Executive Officers (CEO), employees, managers and others to gain a wide range of perspectives on performance in areas as diverse as, board and governance, information technology, leadership, financial performance, human resources management, innovation, fairness, and industrial relations.

Another priority of the study has been to collect financial performance data. This contrasts to previous work (e.g. the United Kingdom's *Workplace Employment Relations Survey*), which has relied on employee perceptions and self-reported performance data. By collecting financial data, the research is able to demonstrate the financial and productivity performance of higher and lower performing workplaces.

Last, the study uses the verb 'performing' as opposed to the noun 'performance' to signal that becoming a higher performing workplace is not an end state that can be institutionalised using workplace systems alone but rather an ongoing journey that requires continuous management efforts as well as a shift in the values and beliefs of leaders and others.

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<sup>6</sup> Source: The then Deputy Prime Minister's speech at the 15<sup>th</sup> World Congress of the International Industrial Relations Work Congress, August 24-27, 2009, Darling Harbour Convention Centre, Sydney.

## 2. About the Study

This study was undertaken in collaboration with organisations in the Australian services sector. The Australian services industries is a large and growing part of the Australian economy, contributing \$702.4 billion to GDP in 2007-2008 and \$845.2 billion in 2009-2010 (76.4 per cent of Industry Value Added to Australian GDP)<sup>7</sup>.

### 2.1. Industry Sector

Internationally, service based organisations have been referred to as Knowledge Intensive Business Services (KIBS). In Australia, according to the 1993 Australian and New Zealand Industrial Classification Scheme (ANZSIC), KIBS organisations are predominantly concentrated in the Property and Business Services (P&BS)<sup>8</sup> industry division, although they also occur in other industry classifications.

Organisations in the P&BS industry division are primarily concerned with the provision of business services, such as legal services, employment placement services, computer services, accounting services, management consulting services, advertising services, and property services, such as property sales, operation and development.

During the study, official government statistics in Australia switched to using the more recent 2006 ANZSIC scheme. For reasons of comparability, industries and classified organisations were targeted according to the 2006 ANZSIC scheme. As a result of the challenges associated with recruiting organisations to participate in the study (see details below), the industry classification rule was applied loosely and this resulted in a slightly broader sample of organisations spanning into industry divisions other than the services industry. Nonetheless 65 percent of the sample falls within the P&BS industry division. The economic data that follows is the latest publicly reported data available for P&BS.

P&BS was the largest contributor to GDP in 2007-08 amongst the service industries at \$131.9 billion (14.4 per cent of total GDP) and has surpassed manufacturing in past decades (which contributed \$106.8 billion (11.6 per cent) to GDP in 2007-08<sup>9</sup>). P&BS is the second largest employer amongst service industries, employing 1.256 million people in 2007-2008 (12.1 per cent of total employment). This exceeded the share of total employment for any other sector: manufacturing 10.4 per cent, mining 1.5 per cent and agriculture 8.3 per cent. Approximately a quarter of all Australian businesses are in P&BS (507,786) dwarfing all other industry sectors.<sup>10</sup>

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<sup>7</sup> DIISR Key facts Australian Industry 2007-8 and 2009-10.

<sup>8</sup> The correspondences between ANZSIC 1993 and ANZSIC 2006 are listed in ABS 1292.0, ANZSIC, 2006, (Revision 1.0), chapter 10. ANZSIC 1993 L Property and Business Services corresponds to subsectors across ANZSIC 2006 L Rental, Hiring and Real Estate Services; M Professional, Scientific and Technical Services and N Administrative and Support Services. For comparability with historical data this report focuses largely on industry sector ANZSIC 1993 L.

<sup>9</sup> Source: Key Facts, Australian Industry 2007-08, DIISR.

<sup>10</sup> Source: ABS Cat. 81550 (2005-06). The distribution of organisational sizes (2005-06) was small (<20) 96.6 per cent, medium (20-199) 3.03 per cent and large (200+) 0.32 per cent.

The PB&S industry division is important to Australia because of its scale and its potential for both continued export growth and the generation of well-paid jobs. In 2007-2008, employment growth in P&BS was 4.3 per cent, significantly higher than the 1.5 per cent experienced by the economy as a whole.<sup>11</sup> The 10-year annualised growth in employment to May 2007 was 3.9 per cent, which was the strongest growth in any industry sector in Australia.<sup>12</sup>

However, growth in value added has not outpaced the increase in employment and, in general, labour productivity growth (gross value added per employee) performance has been poor. The average annual productivity percentage growth rates for P&BS in Australia were -1.6 (1975-85), -2.0 (1985-95) and 0.9 (1995-2005). This pattern of negative and slow growth in labour productivity in P&BS compared to the Australia economy as a whole has also been observed in a number of other developed nations, including the USA, UK, France, Japan and Germany.<sup>13</sup> Starting in 2001, developments in ICT appear to have propelled a rapid expansion in world trade of services. Average annualised growth rates in 2001-05 were 12.5 per cent.

## **2.2. Recruiting Organisations to Participate in the Study**

A two tier marketing strategy was developed to recruit organisations to participate in the research study. One tier was an outbound marketing campaign where over 4000 organisations were contacted by phone or e-mail and invited to participate. The second tier was an awareness raising campaign in the public media. Articles featured in the current press and in magazines published by the members of the Steering Committee, e.g. CPA Australia, Australian Institute of Human Resources Management, Chartered Secretaries Australia etc.. Three part time senior contract staff with sales skills and practical experience in service-based organisations were recruited to lead the sign-up process. They were assisted by part time research assistants, who did much of the outbound e-mail campaign.

The recruitment process initially produced over 120 interested organisations. This number however declined once the organisations were given the online diagnostics to complete. Many organisations were not aware that data collection was required, some were concerned about confidentiality, others already ran online diagnostics and did not wish to provide access to their workforce due for example to issues such as survey fatigue. Gaining access to the workforce (as opposed to merely the Chief Financial Officer or Human Resource Manager) proved to be a significant challenge and a reason why many organisations decided not to participate.

Of the 120 organisations, 71 organisations successfully completed all three diagnostics and qualified for participation in the study. At this point, \$60,000 had been spent on the sign-up process. An additional \$25,000

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<sup>11</sup> Source: Services Sector: Overview of Structural Change, Industry Brief 2007-08, Department of Innovation, Industry, Science and Research.

<sup>12</sup> Source: Employment Outlook for Property and Business Services, October 2007, [www.skillsinfo.gov.au](http://www.skillsinfo.gov.au)

<sup>13</sup> Source for labour productivity data: EU KLEMS database as reported in *Services Sector: Overview of Structural Change*, Industry Brief 2007-08, DIISR. pp 19-20.

was invested to improve recruitment. This resulted in an additional 7 organisations that successfully completed the online diagnostics, bringing the total to 78 organisations.

Based on the +4000 organisations that were contacted over the 12 months period, this makes for a conversion rate of 0.02%. The cost of recruiting one organisation amounts to just over \$1000.

### **2.3. The Hot Desk**

A Hot Desk was set up at UNSW to ensure that the participating organisations had a point of contact to direct questions before, during and after completing the online diagnostics. Employees in the participating organisations were given access to the Hot Desk whose contact information was published on each page of the online diagnostics.

Besides answering calls and emails, the UNSW Hot Desk made outbound calls and led the recruitment campaign. In total, over 2,000 calls and around 7,000 emails were handled by the Hot Desk from March 2010 through March 2011 (see table 1).

**Table 1: Hot Desk Activity**

Outbound calls	Approx. 1,200 calls
Outbound e-mails	Approx. 4,000 e-mails
Inbound calls	Approx. 800 calls
Inbound e-mails	Approx. 3,000 e-mails

The Hot Desk was staffed from 9am to 5pm daily.

### **2.4. Confidentiality**

The study received Ethics Clearance in March, 2010, from the UNSW Human Research Ethics Advisory Panel. Ethics clearance guarantees the participating organisation full confidentiality. This means their identity will not be communicated to anyone outside the research team. It also means their information (e.g. financial data and all other data) will not be shared in such a manner that the participating organisation can be identified. It also ensures that the research is conducted in an ethically appropriate manner. The survey questions and methods have been reviewed by the Ethics Advisory Panel and cleared for public consumption.

### **2.5. Diagnostic Instruments and Validity**

Three diagnostic instruments were developed in the period from December, 2009 to July, 2010. The instruments were designed to identify the percentage of the participating organisations that could be classified

as 'higher performing' and the leadership, culture and management practices that these organisations deploy and benefit from. The three instruments included the:

- CFO Diagnostic, featuring approximately 116 questions.
- HRM Diagnostic, featuring approximately 150 questions.
- Employee Diagnostic, featuring approximately 124 questions.

The research team was concerned with the validity of the findings of the research. Accordingly, the three research instruments were designed following scientific research principles. Construct validity and content validity are particularly important and these were considered throughout the design of the study and the instruments. *Validity* refers to the degree to which a study accurately reflects or assesses the specific concept that the researcher is attempting to measure. *Reliability* is concerned with the accuracy of the actual measuring instrument or procedure. *Construct validity* seeks agreement between a theoretical concept and a specific measuring device or procedure. To this effect, the team chose to mainly use existing scales, items and constructs that have been tested and validated previously in academic research. Furthermore, key sheets were developed for each instrument to define the scales used, to explain the theoretical relationships between different constructs and to acknowledge the sources from where the scales had come. The research team increased content validity by undertaking a comprehensive literature review, starting in November 2009 and running until May, 2010. The review analysed the attributes and practices of HPWs within different disciplinary areas (see Boedker *et al.*, 2011).

## **2.6. Piloting and Data Collection**

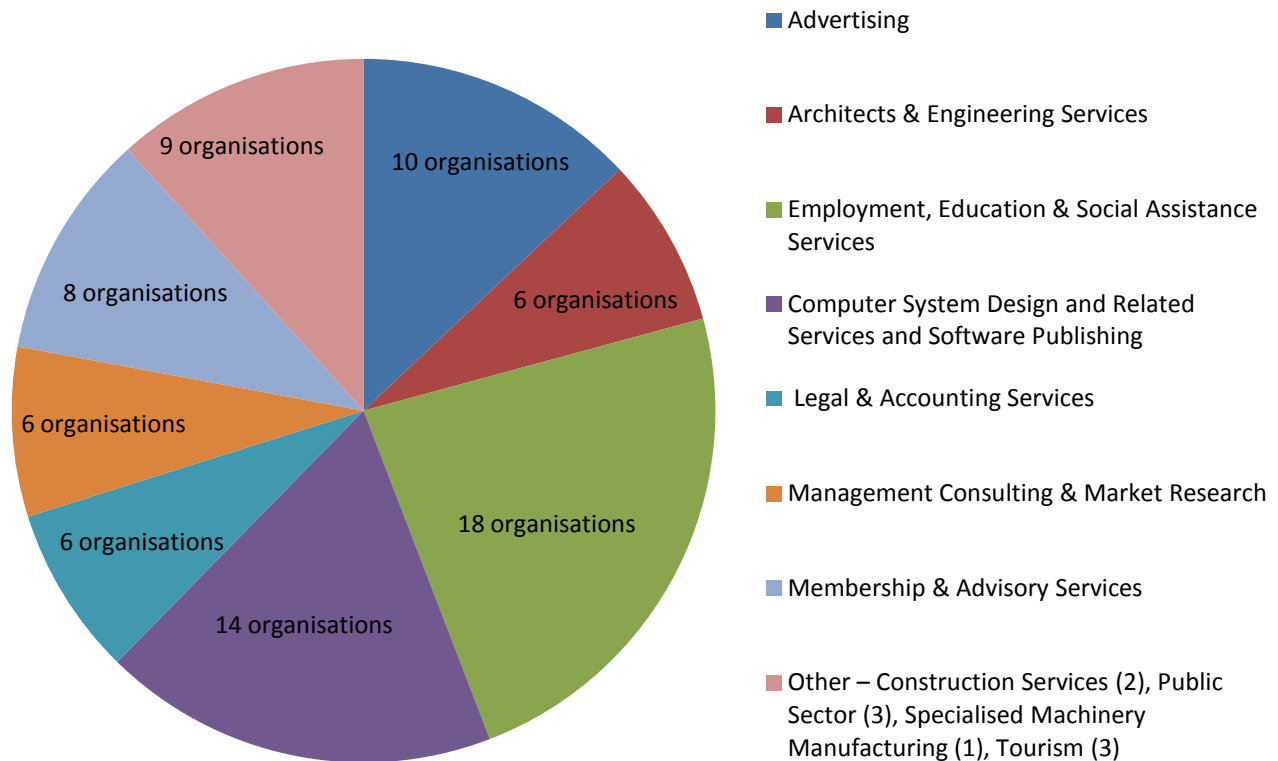
The three diagnostic instruments were piloted with two Australian organisations in May 2010 to test the reliability of the survey scales, constructs and items and to make sure the surveys were user friendly. Following feedback from the pilot organisations, the instruments were amended to address weaknesses and further strengthen their usability.

Following the initial two pilots, 76 additional organisations completed the three diagnostic instruments. This data collection took place from September 2010 through March 2011.

The three instruments were made available to participating organisations online. This proved to be a cost-effective way to collect data. It also gave employees at all levels of the organisations an opportunity to participate. A key criterion for an organisation to participate in the study was that the majority of its employees had online access. In one instance, due to power failure following the Queensland floods, paper-based instruments were distributed to the participating employees.

## **2.7. Industry Sub-sectors**

Guided by the ANZSIC industry classifications, the 77 participating organisations were grouped into eight industry sub-sectors, as shown in the figure 4.



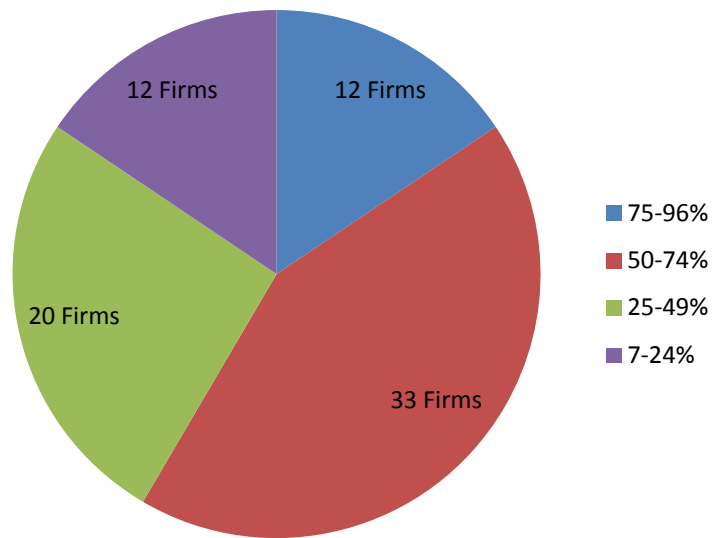
**Figure 4: Industry Sub-Sectors**

## 2.8. Employee Response Rates

Achieving satisfactory response rates is a key challenge to any online diagnostic. Many organisations run internal diagnostics themselves and it is plausible that employees suffer from survey fatigue. The effect of this might be that only dissatisfied employees fill in the diagnostic; or the opposite can happen, whereby only those that are very enthusiastic about their workplace are willing or keen to share their views with others. Such responses can cause biases in the data and result in invalid research findings.

To maximise response rates from employees, the team developed a strategy whereby the participating organisation's CEO (or other senior executive, e.g., General Manager or Managing Director), became the key champion of the project. This helped to communicate and symbolise the importance of the project to employees and was critical to achieving satisfactory employee response rates. Furthermore, the UNSW Hot Desk worked closely with the designated internal project sponsor to design the communication messages that would go out to the workforce to launch the study; for example, pointing out benefits to employees as to why they should participate and why their views matter.

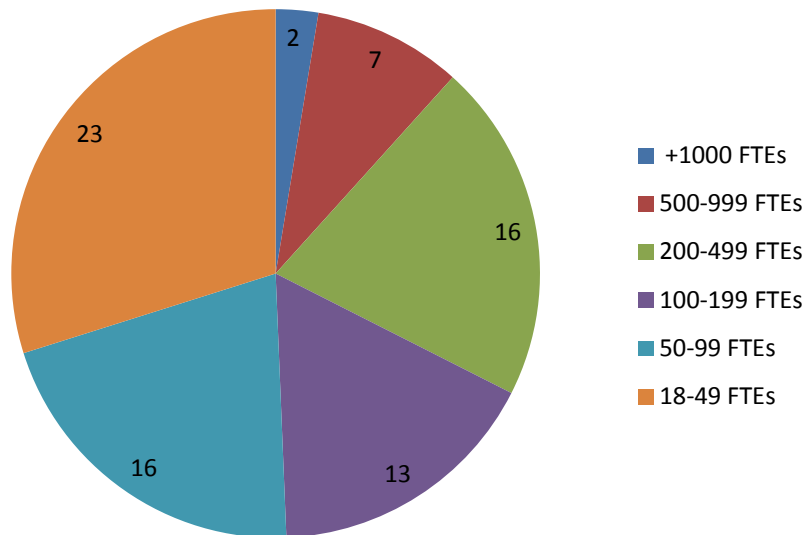
This proved to be an effective strategy and resulted in good employee response rates. These ranged from 96% to 7%, and averaged at 50.5%. Figure 5 shows that 12 organisations achieved employee response rates between 75-96%, 33 organisations between 50-74%, 20 organisations between 25-49%, and 12 organisations between 7-24%.



**Figure 5: Employee Response Rates**

### 2.9. Size of Participating Organisations

The organisations varied in size. The largest organisation had 1730 full time employees (FTE) and the smallest organisation had 18 FTE. Figure 6 below shows the break-down of FTEs in the participating organisations.



**Figure 6: Size of Participating Organisations**

## 2.10. Benchmark Reports

This study was concerned to create value for the participating organisations and to share with them the results of the research. To this end, the team designed four reports, which provide very detailed performance feedback to the participating organisations, for example showing an organisation's performance results relative to the other organisations in the sample, relative to their industry sub-sector, and relative to the top 10 performing organisations.

The participating organisations receive the following reports:

- An executive summary, showing the organisation's position on the HPW Index (see example below).
- The CFO Benchmark Report.
- The HRM Benchmark Report.
- The Employee Benchmark Report.

The four reports total over 100 pages of performance feedback to the organisations. The performance information was intended to help the organisations to assess areas of strength and weakness in their portfolio of management activities.

### Example of Benchmark Reporting: Position of a Participating Organisation on the HPW Index

Position	HPW Index Score	Innovation	Employee Experiences	Fairness	Leadership	Customer Experience	Financial Performance
1	88.02	83.01	85.26	89.54	89.96	96.29	84.08
2	80.12	85.81	79.0	74.54	81.65	87.42	72.29
3	78.6	88.76	78.62	72.48	76.85	90.32	64.59
4	78.54	90.55	77.51	72.96	75.8	83.21	71.2
5	78.28	83.49	79.16	72.79	83.6	81.85	68.79
6	78.06	78.5	79.8	73.5	78.85	86.45	71.25
7	77.35	87.65	80.51	74.54	74.62	83.93	62.86
8	76.63	66.73	83.87	77.09	78.65	81.68	71.76
9	76.61	78.12	82.67	79.64	82.26	85.48	51.5
10	76.22	75.09	82.39	80.68	87.68	88.33	43.16
11	75.76	72.34	79.74	77.02	84.74	86.21	54.48
12	74.28	82.7	73.18	70.77	76.76	74.7	67.56
13	73.97	85.69	74.23	69.25	74.59	81.61	58.43
14	73.85	81.36	75.48	67.09	72.29	80.71	66.2
15	73.44	73.88	77.64	71.35	72.95	83.33	61.48
16	73.28	80.22	79.35	67.95	76.69	79.7	55.74
17	72.78	66.74	70.0	65.58	72.94	77.26	84.15
18	72.6	71.13	73.49	70.74	75.44	74.3	70.48
19	71.46	73.76	74.09	65.49	74.92	75.68	64.81
20	71.28	74.17	74.23	67.52	77.26	86.12	48.37
21	71.18	71.94	72.33	67.47	73.82	72.5	69.0
22	71.04	61.41	72.61	69.15	76.72	77.98	68.4
23	70.33	69.2	73.79	69.26	75.1	72.13	62.49
24	70.3	54.2	74.74	67.94	71.33	78.73	74.84
25	69.99	78.57	72.73	72.84	80.06	79.46	36.27



## **2.11. Methodology and Design**

### *Creation of the HPW Index*

All of the 18 measures in the HPW Index are scaled to fall between 0 and 100. The great majority of items were captured using seven-point Likert scales, which were transformed by subtracting one, dividing by six and multiplying by 100. Two items were not Likert based: profit margin and productivity. These are unbounded scales in that there is no identifiable lower and upper limit to the range. For each of these measures the highest value found in the dataset was assigned a value of 100; the lowest value in the dataset was assigned a value of zero. All the remaining values were scaled to fall in the range 0 to 100. All 18 measures were then weighted equally and the mean used to calculate the HPW index. The HPW Index was converted to a z-score (a distribution with a mean of zero and a standard deviation of 1) to identify the lower (a z-score greater than -1) and higher performing workplaces (a z-score greater than +1).

The distribution of the HPW Index scores is shown in figure 8 in section 3 and can be seen to demonstrate some skew and kurtosis. The measures of skew and kurtosis of the HPW Index are within acceptable bounds for the purposes of the data analysis in this report.

### *Detection of Outliers*

Hair et al. ("Multivariate Data Analysis", Pearson, 2010, p. 67) say that when looking at univariate methods (such as the HPW Index) "for small samples (80 or fewer observations), outliers typically are defined as cases with standard scores of 2.5 or greater". One company had a z-score higher than three, while the next highest score was just a little over two. A correlations with and without the outlier case was run and this showed that the outlier biased the results - in the direction of strengthening the correlations - suggesting that the outlier was an influential case. In the interests of conservatism and presenting robust results, the outlier was deleted and this reduced the sample size for analysis from 78 to 77.

### *Generalisability of the Findings*

The 77 organisations used in the analysis are not a random sample and the findings of the report should not be used to generalise about Australian industry or industry sub-sectors. Inferences should only be drawn about the 77 organisations in the data set.

### *Correlations and the Attribution of Cause and Effect*

Correlations between management practices and the HPW Index have been calculated and are reported in this report. Correlations are associations between variables and these should not be interpreted as cause and effect relationships. Similarly, the correlations in tables 2a and 2b in section 3 should be read as associations rather than causal relationships. The correlations that follow in figure 16 and appendix 1 are the Pearson correlation coefficients with the exception of business and ICT alignment, training in interpersonal skills, and training in mentoring/coaching. These three items are heavily skewed and for these the Spearman correlation coefficient (a non-parametric test) is reported. The Spearman correlation coefficient values produced are similar to the equivalent Pearson coefficient values, giving us confidence that the results are robust to different treatments.

### *Sample Size and Statistical Power*

As the sample is not random the question of confidence limits does not arise as we are not generalizing to a larger population. However, the size of the sample does affect the statistical power of the analysis reported. A power analysis conducted with G\*Power 3.1<sup>14</sup> suggests that sample size of 84 is required to detect medium effect sizes; our sample of 77 organisations is therefore best able to detect large effects. This means that some of the borderline results may not be replicated with a larger sample.

### *Circularity*

In reporting each of the categories of the HPW Index in section 3, it is essential to control for the focal category. For example, in reporting leadership, a HPW Index that includes only the remaining five categories has been calculated, i.e., innovation, employee experience, fairness, customer orientation, and profitability & productivity. This shows which organisations are higher performing and which are lower performing when leadership is excluded (i.e., controlled for). This relationship can also be thought of as depicting the correlation between one Index category and the remaining categories of the Index, i.e., it is a visual representation of table 2b. Leadership, for example, correlates very highly at .774\*\*\* with an Index comprised of the five remaining categories.

### *Common Method Bias*

As with any self-reported data there is a danger of common method bias – spurious covariance between constructs that arises from issues such as the use of the same method for data collection and social desirability. Care was taken to design the surveys such that common method bias would be minimized, e.g., through the structure of the instrument and the placing of questions. Further, by collecting data from both employees and managers and CFO data on profitability and productivity the impact of common method bias is further mitigated.

## **2.12. Limitations and Strengths of the Study**

There are limitations to this study. For example, the analyses and results presented in this report derive from the performance data of 77 organisations. The team had hoped for more participating organisations, but with an average recruitment cost of more than \$1000 per organisations, it was too expensive. Second, the eight industry sub-sectors are small with the largest industry sub-sector comprising 18 organisations. Again, larger industry sub-sectors would have been desirable, and this could be a goal for further studies.

Despite these limitations, this research is still one of the most comprehensive and detailed studies into workplace performance undertaken with Australian organisations since the 1995 AWIRS. Nearly 400 questions have been answered by each of the participating organisations. It is also one of a few studies to collect financial performance data to analyse the financial differences of different management practices. Furthermore, the study is cross-disciplinary and brings together areas that traditionally are not connected within a HPW study (e.g.

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<sup>14</sup> Faul F., Erdfelder E., Lang A. and Buchner A., (2007), "G\*power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences", *Behavior Research Methods*, 39 (2007), pp. 175-191.

strategy, leadership, accounting controls, human resource management, fairness, innovation, information technology, customer orientation, and governance, etc.).

As stated above, we do not suggest that the findings represented in this report can be generalised to speak for all organisations in the Australian services sector or in Australia. Rather, we would like to suggest that this project is an important step forward to generate knowledge about the performance and practices of Australian workplaces and to advance the discussion about the many ways in which managers, executive officers and others can intervene to individually and collectively lift workplace performance. It follows other important Australian studies such as *Management Matters* published by the Department of Innovation, Industry, Science and Research in 2009.

The study suggests that more can be done to improve the management of our organisations' intangible assets and the quality of Australian leadership, culture and management practices. Government has an important role to play as a knowledge broker and facilitator in lifting workplace productivity.

### 3. What is a High Performing Workplace?

#### 3.1. The High Performing Workplace Index

This report explores the proposition that HPWs focus on multiple dimensions of their performance. This includes conventional financial indicators but also importantly intangible assets, such as innovation, leadership, fairness, employee experiences and customer experiences. The study suggests that HPWs develop capabilities across these multiple areas

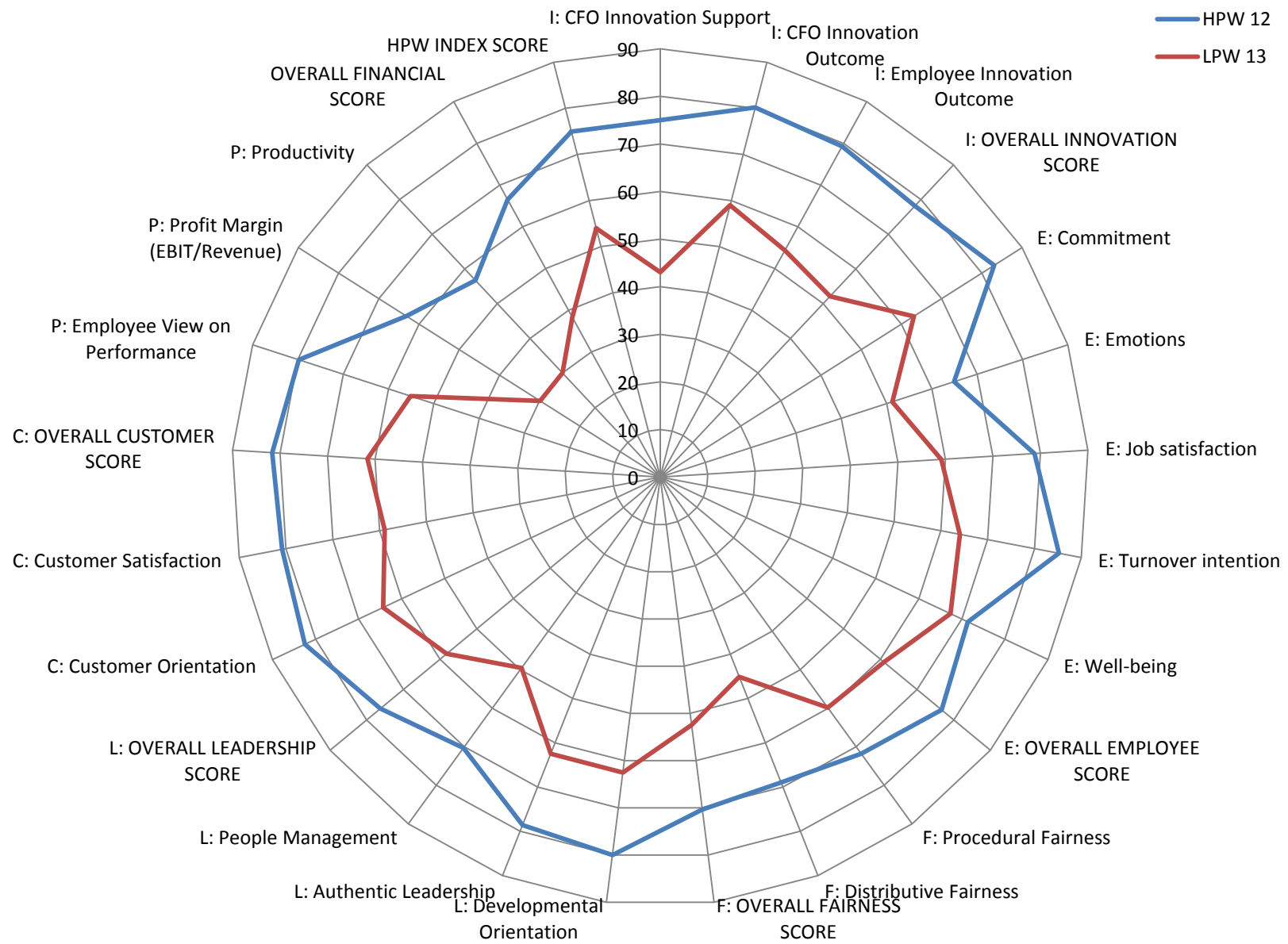
Below is an analysis of the characteristics of HPWs. This is based on data from the 77 participating organisations covering 5661 employee responses.

The HPW Index, illustrated in figure 7, evidences the performance of the participating organisations. Specifically, it distinguishes the higher performing workplaces from the rest. The HPW Index is derived from 18 measures of organisational performance, grouped into six categories. The measures have been identified during a thorough, 140 page, review of the high performing workplace literature and a close examination of existing surveys that have been used internationally to research organisational performance (see Boedker *et al.*, 2011, for details).

The HPW Index was computed by calculating an overall score for each organisation in each of the six categories. The six categories were weighted equally since there was no apparent reason to do otherwise. The 18 performance measures, grouped into six categories, are:

1. **Profitability & Productivity (P):** Profit margin ratio and productivity using the organisations' financial data; employee perceptions of the organisation's financial performance.
2. **Innovation (I):** CFO perception of the organisation's innovation outcomes and organisational support for innovation; employee perception of the organisation's innovation outcome.
3. **Employee Experience (E):** Employee perceptions of their level of commitment to the organisation; positive and negative emotions at work; job satisfaction; turnover intention; and general well-being.
4. **Fairness (F):** Employee perceptions of distributive fairness and procedural fairness in the organisation.
5. **Leadership (L):** Employee perceptions of their immediate supervisor's leadership skills in three areas: developmental orientation; authentic leadership; and people management.
6. **Customer Orientation (C):** Employee perceptions of the organisation's customer orientation and customer satisfaction.

The results of the analysis of the performance data received from the 77 organisations are summarised in the spider diagram in figure 7 and discussed in detail on the following pages.



**Figure 7: High Performing Workplaces: 18 Performance Measures across 6 Areas (scaled 0-100)**

### 3.2. HPWs and LPWs as 1 Standard Deviation from the Mean

Figure 7 summarises the scores for the HPWs and the LPWs in the sample. It shows two plots, the outer blue line and the inner red line, which chart the performance of the two groups of organisations. The figure illustrates that HPWs perform better than LPWs on all dimensions. In all six categories of performance, the blue line (HPWs) is higher than the red line (LPWs). In no situation is the red line higher than the blue line. Although this is not surprising given the construction of the Index, the figure shows that the performance differences between the higher and the lower performing workplaces are substantial.

The top and bottom performing organisations were identified as one standard deviation *above* the mean of the adjusted HPW Index and one standard deviation *below* the mean of the HPW Index (see figure 8). This resulted in 12 organisations (15.58% of the sample) in the HPW category and 13 organisations (16.88%) in the LPW category.

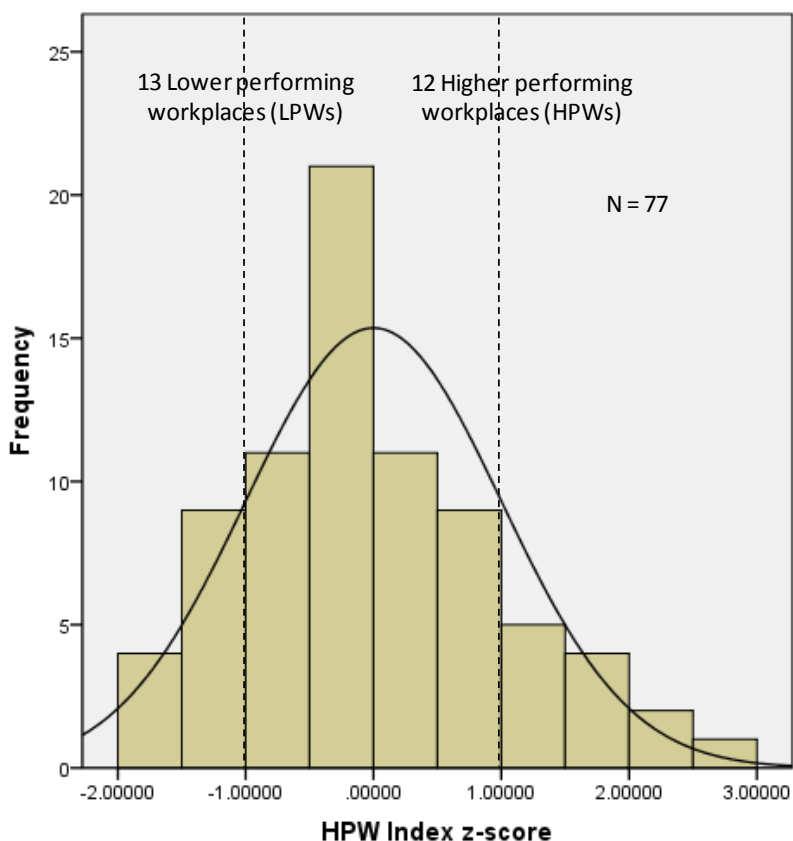


Figure 8: HPWs and LPWs: 1 Standard Deviation (+ and -) from the Mean

### 3.3. The Correlation Matrix

Table 2a shows the correlations between the six categories of performance. A correlation value can range from -1 (perfect negative correlation) through to 0 (no correlation) and +1 (perfect positive correlation). Typically, correlations of greater than .5 are considered strong, those greater than .3 medium and anything

less than .3 are weak. Table 2a also lists the p-value of each correlation. The p-value is a test of the significance of the result and calculates the probability that the correlation could have been achieved by chance. As an example, a p-value of less than .001 means that there is less than one chance in a thousand that the result happened by chance.

The correlations in table 2a are notably positive in all instances, and there are significant associations between all of the different index categories. Some correlations are stronger than others; for example, leadership correlates very strongly with employee experience (.787\*\*\*), while fairness and innovation have a weak association (.284\*). With regard to profitability and productivity, the correlations are strongest with leadership (.424\*\*\*) and innovation (.396\*\*\*). The correlations are all statistically significant at the level of  $p < 0.05$  and many are significant at  $p < 0.01$  (\*\*) and  $p < 0.001$  (\*\*\*). These results suggest that an organisation's financial performance is associated with the quality of its leaders, its customer orientation, the degree of fairness in rewards and operating procedures, and its ability to innovate and create positive employee experiences.

**Table 2a: Correlations between the 6 Categories in the HPW Index**

	Innovation	Employee Experience	Fairness	Leadership	Customer Orientation	Profitability and Productivity
Innovation	1					
Employee Experience	.306** (p = .007)	1				
Fairness	.284* (p = .012)	.781*** (p < .001)	1			
Leadership	.437*** (p < .001)	.787*** (p < .001)	.758*** (p < .001)	1		
Customer Orientation	.343** (p = .002)	.735*** (p < .001)	.689*** (p < .001)	.649*** (p < .001)	1	
Profitability and Productivity	.396*** (p < .001)	.268* (p = .018)	.286* (p = .012)	.424*** (p < .001)	.300** (p = .008)	1

It is interesting to see how each of the six categories, individually, relates to the other five collectively. We calculated six further HPW indexes, each of which contains five categories of performance, for example the Index minus leadership consists of innovation, employee experience, fairness, customer orientation, and profitability and productivity. We can then correlate leadership with this new Index to see the strength of the association of leadership with the new Index. Table 2b shows how each category in the index correlates with its associated five-item index.

**Table 2b: Correlations for Each Category to the other 5 Categories Grouped Together**

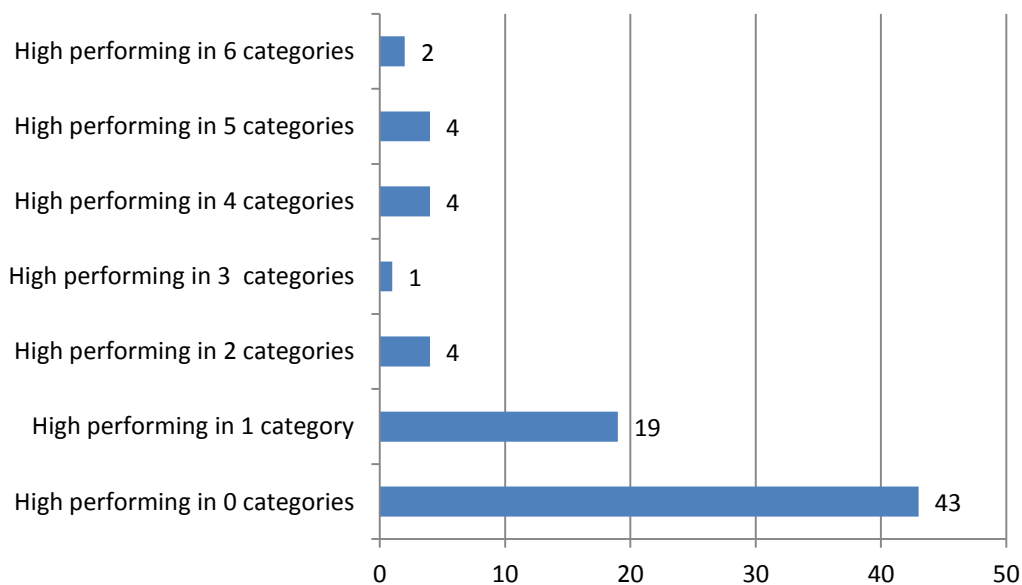
Dimension	Correlation to Other 5 Dimensions	P-value
Innovation	.463***	<.001
Employee Experience	.679***	<.001
Fairness	.658***	<.001
Leadership	.774***	<.001
Customer Orientation	.646***	<.001
Productivity & Profitability	.434***	<.001

Table 2b shows that leadership has a strong and highly significant correlation with the other five categories of the Index (.774\*\*\*). Innovation and profitability and productivity score lower but all six categories are correlated with high significance ( $p < .001$ ) against the Index.

**3.4. Not all HPWs are High Performing in all 6 Categories**

Not all HPWs are ranked in the top 12 organisations in all six categories. Indeed, of the 12 HPWs, only two organisations are amongst the top performing organisations in all six categories, followed by four organisations in five categories, four organisations in four categories, and three organisation in three categories (see Figure 9).

This indicates that most of the participating organisations have room for improvement. Furthermore, whilst a HPW might be high performing in e.g. employee experiences or fairness, it may not be high performing in *all* other areas e.g. innovation or leadership.



**Figure 9: Most Firms have Scope for Improvement**



### 3.5. The Six Areas of Performance

What follows is an analysis of some of the key differences in performance between the HPWs and the LPWs in the six categories that make up the HPW Index, as summarised in figures 1 and 7. Note that in analysing the six areas of performance, the particular category being analysed has been controlled for (see section 2.11 on circularity for further details). The analyses that follow provide a visual guide to the correlations shown in table 2b.

#### 3.5.1. Productivity and Profitability

##### **Productivity**

Productivity measures how efficiently inputs are converted into output by a firm. The quantity of output a firm produces depends on the quantities of the tangible inputs it uses (labour, capital equipment and intermediate inputs) plus the technology and knowhow of the firm in combining and transforming these inputs into services and goods that customers are willing to pay a premium for. Thus an equivalent way of viewing productivity is as a residual measuring how output varies in firms beyond that due to observable inputs. Highly productive firms produce more output per unit of inputs.

Productivity growth is a key driver of Australia's economic growth rates because there are only two ways to increase growth in GDP: 1) to increase national resources (population growth, labour force participation and our national capital stock); 2) to improve how well the resources are used (productivity).

The measure of productivity used in this study is TFP for individual firms calculated using a Cobb-Douglas approximation based on cost shares in an equivalent way to the Australian Productivity Commission's official calculations of national industry level productivity.

The method involves taking the ratio of output to a weighted product of inputs (the Cobb-Douglas function), with the weights corresponding to the share of total cost for each input.

Output was measured using revenue and inputs were measured using cost data. For services firms, labour tends to be the main input and the study was designed to capture this item in addition to the cost/input measures from standard financial reports<sup>15</sup>.

For comparison purposes, firm productivity was normalised by industry sub-sector so as to be comparing like with like.

We have a cross section of data, i.e. one observation per firm, hence all estimates are made using one period calculations.

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<sup>15</sup> As a robustness check, TFP was also calculated using a regression method. The results were highly correlated with the Cobb-Douglas method reported here.

TFP for a firm is the ratio of its output  $Y$  to a composite index of its inputs:

$$TFP = \frac{Y}{I}$$

The index of input  $I$  is calculated as the weighted geometric mean of a firm's labour input  $L$  and its other inputs  $M$ :

$$I = L^a M^b$$

where  $a$  is the share of a firm's total costs spent on labour and  $b$  is the share of total costs spent on all other inputs. Thus, if the cost of labour is  $X$  and cost of all other inputs is  $Y$  then:

$$a = \frac{X}{X+Y} \quad \text{and} \quad b = \frac{Y}{X+Y}.$$

This is the standard method for calculating TFP/Multifactor Productivity and is based on the assumption of a Cobb-Douglas production function with constant returns to scale. This is the same assumption that economists at the Australian Productivity Commission use for their essentially equivalent calculations of industry level productivity.

*This study finds that when ranked on the performance of their intangible assets, the Total Factor Productivity of HPWs is 12% higher than the Total Factor Productivity of LPWs.*

It should be noted that productivity is difficult to measure for service firms since output is hard to quantify compared to goods production where there is typically a physical unit of output to count. Cost measures, such as physical assets or those used in engineering and manufacturing, have traditionally been the cost categories used to calculate productivity, but are understandably not available for the services sector. So, in this study, accounting based financial measures has been used to measure output (measured as revenue) and costs as inputs. The use of price deflators on revenue can also be problematic since it confounds quality changes with quantity changes. Labour is the main input and this also presents measurement problems because of quality differences and contracting arrangements. As a result, there are a number of difficulties with measuring TFP in the services sector and this has led Australia and also the OECD to exclude it from their industry productivity reports. We suggest that our estimates and work in this report should be interpreted with some caution. It is pioneering and needs more exploration and development

### **Profitability**

The differences in financial performance between the HPWs and LPWs are remarkable. These concern both profit margin differences and employee perceptions of the organisations' financial performance.

The profit margin ratio is calculated using financial data obtained from the CFO or Financial Controller for the 2009-10 fiscal year and 2010-11 fiscal years. Initially, all organisations submitted their financial data via the online diagnostic. Follow up conversations took place with over 30 organisations to affirm or correct their financial data and to make sure this was reliable and comparable.

Table 3 details the differences in the profit margin (percentage points and dollars) between the HPWs and LPWs when controlling for profitability and productivity. The control means that LPWs and HPWs have been identified using an Index that includes the five intangible categories of performance.

The profit margin has been computed as earnings before interest and tax (EBIT) divided by revenue. It shows how much profit the organisation generates from each dollar of revenue. It is an important performance measure that illustrates how well an organisation manages its costs, its pricing strategies and its customer relations. This ratio takes out any differences in tax and interest payments that may result from, for example, multinational corporations, that may not fund their assets from Australian shores. Several multinational organisations participated in this study; hence, the *before* interest and tax ratio was most appropriate as a financial performance measure that allowed fair comparisons between the organisations.

**Table 3: Profit Margin Difference between LPWs and HPWs**

	<b>Profit Margin (%)</b>	<b>Profit Margin (\$)</b>	<b>Profit (\$) Per FTE</b>
LPWs	5.44%	\$4,726,162	\$37,634
HPWs	15.62%	\$13,570,340	\$77,684
<b>Profit margin differences between LPWs &amp; HPWs</b>	<b>10.18%</b>	<b>\$8,844,178</b>	<b>\$40,051</b>

Table 3 shows that the profitability of HPWs is much higher than LPWs, when ranked in terms of their intangible asset performance. LPWs have an average profit margin ratio of 5.44% whilst HPWs have an average profit margin of 15.62%. This is an almost threefold difference in profit margin between the two groups of organisations. This difference amounts to AU\$8,844,178 million dollars, or \$40,051 per full time employee. In other words, the potential profit gains that could accrue to a LPW if it was to successfully migrate its intangible assets into the HPW category would be substantial.

This excess profitability and superior performance is not random. As figure 7 indicates, HPWs perform on several criteria simultaneously and excel in many different aspects of their operations, specifically in how they manage their intangible assets. For example, HPW are good at empowering and engaging employees to take part in crafting innovations and implementing new ideas that meet customer needs, as follows.

### 3.5.2. Innovation

When organisations innovate, they seek to develop new: 1) services and products, 2) operational processes, 3) managerial methods and structures, and 4) marketing methods. Service and product innovation is often said to be associated with building new revenue sources and sustaining existing ones. Process and procedural

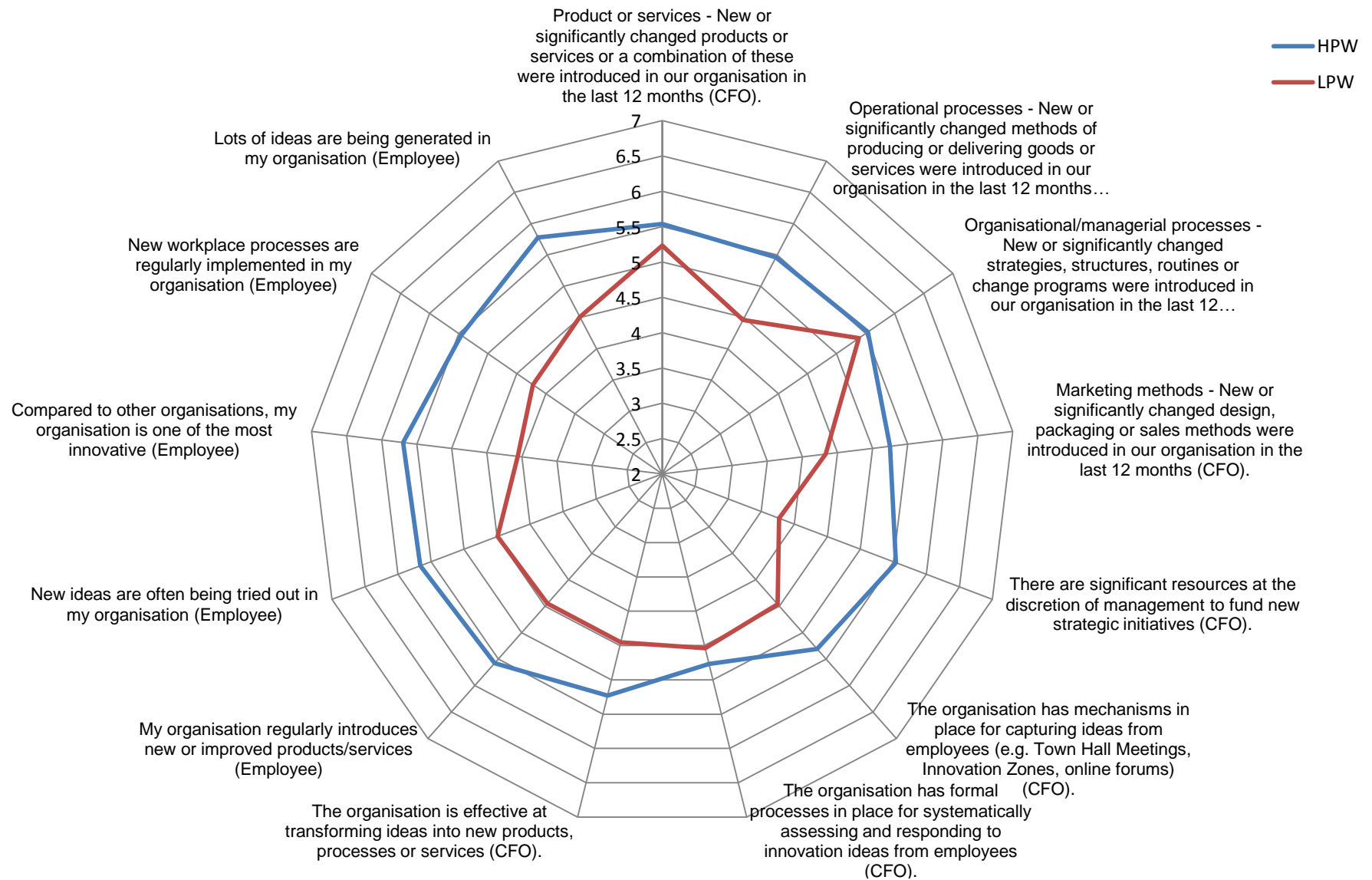
innovations make the organisation more productive, whilst innovations in management methods (e.g. new strategies, organisational structures, joint ventures, etc.) can benefit the organisation in the long haul by, for example, repositioning the organisation in a competitive market space. Innovations in marketing methods concern attempts by management to find new and novel ways of taking services and products to the market and new ways to communicate with and to customers. Such innovations are associated with improving customer relations and developing a presence in new and existing markets. Figure 10 shows that HPWs are significantly more innovative than LPWs in all thirteen areas of innovation performance surveyed in this study.

Innovation succeeds in organisations that make an effort to listen to their customers and to question their existing services, processes and methods. This rarely comes automatically and in HPWs there is more investment in innovation, more resources are used, and mechanisms are put in place to capture and encourage ideas from employees.

It is clear from figure 10 that more ideas are produced in HPWs than in LPWs (28.1% higher). However, the mere existence of ideas does not guarantee their translation into innovation outcomes. HPWs are also more effective at transforming ideas into new services, products or processes than LPWs (17.4% higher). They invest more effort and resources to ensure new ideas are transformed into processes or services. Indeed, some of the biggest differences between HPWs and LPWs are in those categories that concern innovation management, e.g. “resources available for innovation” (46.9% higher for HPWs than LPWs); “mechanisms are in place for capturing ideas from employees (e.g. town hall meetings, innovation zones) (19% higher), and; “the organisation is effective at transforming ideas into new products, processes or services” (CFO) (17.4% higher).

This means that in HPWs, innovation processes are organised from idea generation all the way through to prototyping/trialing new service development and commercialisation. Innovation is taken seriously and is granted management attention.

Even if there are many resources available for innovation in HPWs, it is useful to note that innovation is neither an activity nor an object. It is an effect of development processes, which will sometimes fail and other times end up as a new service or process. Investments in innovation processes do not guarantee positive innovation effects. Therefore, it is noteworthy that HPWs not only have procedures and processes in place to manage their innovation and development activities; they also have cultures and leadership styles that support innovation ambitions, creativity and problem solving (see later sections for more detail).



**Figure 10: Innovation in HPWs and LPWs**  
 (HPWs and LPWs are identified using an Index that excludes innovation)<sup>16</sup>

<sup>16</sup> See section 2.11 for a discussion of circularity and how this has been addressed in the study.

### 3.5.3. Employee Experience and Emotions

Employees in HPWs are more committed to their organisations than employees in LPWs (23.2% higher, see figure 11). Commitment is defined as the relative strength of an individual's identification with and involvement in a particular organisation. In particular, commitment is characterised by three factors: a willingness to exert considerable effort on behalf of the organisation; a strong desire to maintain membership in the organisation; and a strong belief in and an acceptance of the organisation's goals and values<sup>17</sup>:

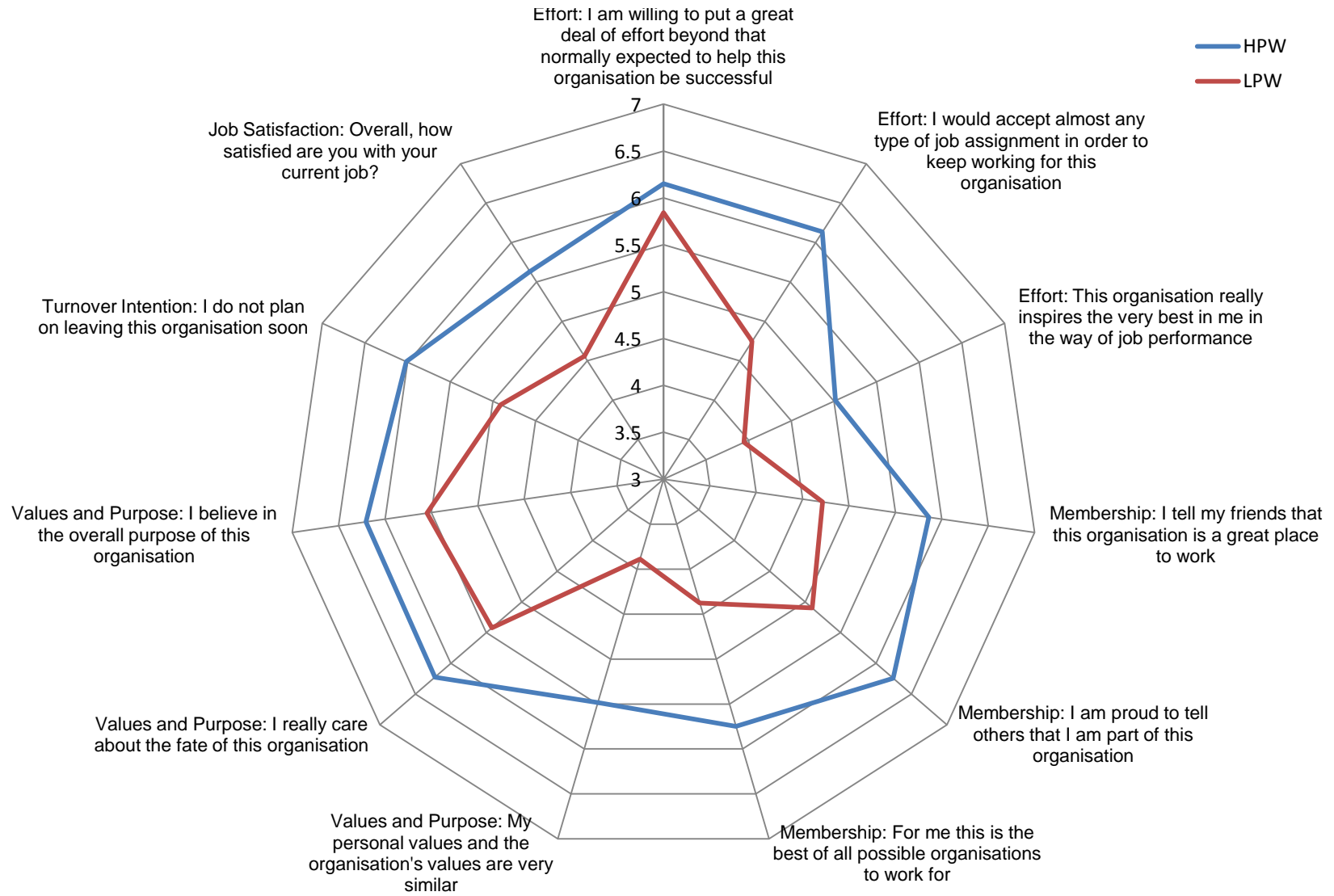
Committed employees exert higher levels of discretionary effort and consistently go beyond their formal job description to satisfy customers or develop novel solutions and responses to emerging problems. Subsequently, they generate more ideas and seek out more opportunities to improve performance. Committed employees also have higher levels of motivation, ambition to do a good job and exert more effort to be productive and creative.

Employee commitment is often connected to the organisation as a whole rather than a specific task. Pride in the organisation, advocating the organisation to friends, and considering the organisation the 'best possible' employer, is more pronounced in HPWs than in LPWs. This is also where job satisfaction is highest (22.7% higher, see again figure 11).

Employees' turnover intentions are much smaller in HPWs than in LPWs (23.3% lower). This has financial consequences for the organisation, not only due to the cost associated with hiring new staff but also due to the loss of productivity (due to loss of knowledge and expertise) that occur when an employee leaves.

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<sup>17</sup> Sources: Becker, T.E.; Billings, R.S. Eveleth, D.M. & Gilbert, N.L. (1996), Foci and bases of employee commitment: Implications for job performance, *Academy of Management Journal*, 38, 2, pp. 25-38. Blau, G. & Boal, K. (1989), Using Job Involvement And Organizational Commitment Interactions to predict turnover, *Journal of Management*, 15, 1; pp. 115 – 128. Mowday, R., and Steers, R.M., (1979), The measurement of organisational commitment, *Journal of Vocational Behaviour*, Vol. 14, pp. 224-47. Nouri, H., & Parker, R. J., (1998), The relationship between budget participation and job performance: the roles of budget adequacy and organisational commitment. *Accounting, Organizations and Society*, 23, 467–483.



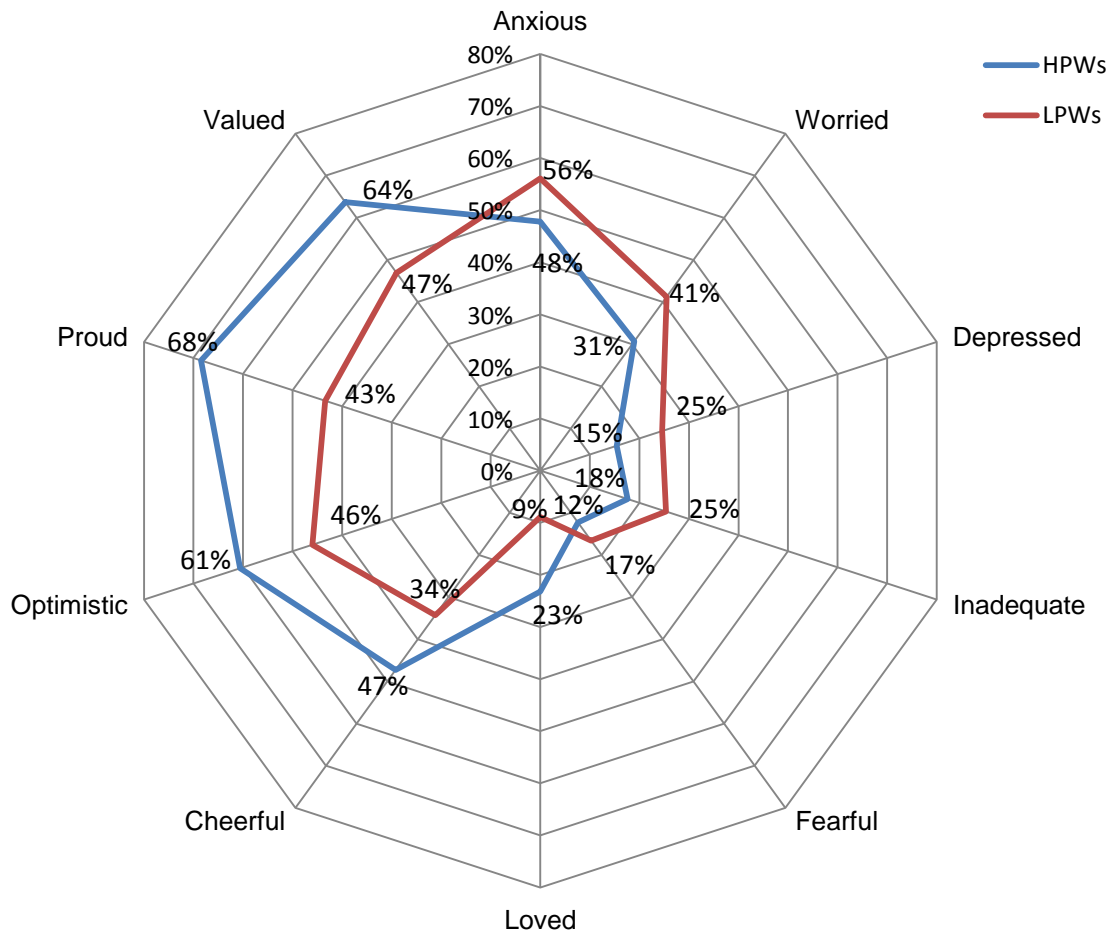
**Figure 11: Employee Commitment, Turnover Intention and Job Satisfaction** (HPWs and LPWs are identified using an Index that excludes employee experience)<sup>18</sup>

<sup>18</sup> See Section 2.11 for a discussion of circularity and how this has been addressed in the study.

Workplaces are emotional places. People’s emotions and feelings are not restricted to their homes or private and family lives. Rather, employees experience a wider range of emotions (such as joy, love, fear and anxiety) as part of their everyday working lives. Interactions with colleagues, customers and others provoke emotional responses as do the relationship with the supervisor. Figure 12 illustrates that positive emotions (such as feeling proud, valued, loved, cheerful and optimistic) are much more prevalent in HPWs whereas negative emotions (e.g. feeling anxious, inadequate, worried, depressed and fearful) are more prevalent in LPWs. Indeed, one in every four respondents (25%) reports feeling depressed in LPWs, whereas in HPWs it is one in every seven respondents (15%).

Similar trends are seen in relation to employees’ feelings of being inadequate (18% in HPWs versus 25% in LPWs) and fearful (12% in HPWs versus 17% in LPWs).

Feeling anxious is the most prevalent emotion in LPWs with 56% of respondents experiencing this emotion. This is followed by being worried, which ranks second highest at 41%.



**Figure 12: Emotions in HPWs and LPWs**  
 (HPWs and LPWs are identified using an Index that excludes employee experience)<sup>19</sup>

<sup>19</sup> See Section 2.11 for a discussion of circularity and how this has been addressed in the study.



In contrast, the most prevalent emotions in HPWs are feeling proud at 68%, followed by feeling valued at 64%, optimistic at 61% and cheerful at 47%.

The greatest difference between HPWs and LPWs is in feeling proud at 57.6% points, followed by feeling valued where the difference is 35.6% points. Employees in HPWs are proud of their organisations and feel valued by their colleagues and, importantly, by their immediate supervisor.

Love is a term seldom used in business, yet around than one in every four respondents (23%) in HPW experience this emotion, whilst only one in every twelve respondents (9%) in LPWs experience it.

#### 3.5.4. Fairness

Concerns over fairness in the workplace underpin today's industrial relations frameworks and have contributed to the foundation of trade unions and aspirations for equity for employees at work. To many people, fairness is an outcome in its own right. This study suggests that fairness is a key characteristic of a high performing workplace alongside other performance outcomes, such as innovation or financial performance.

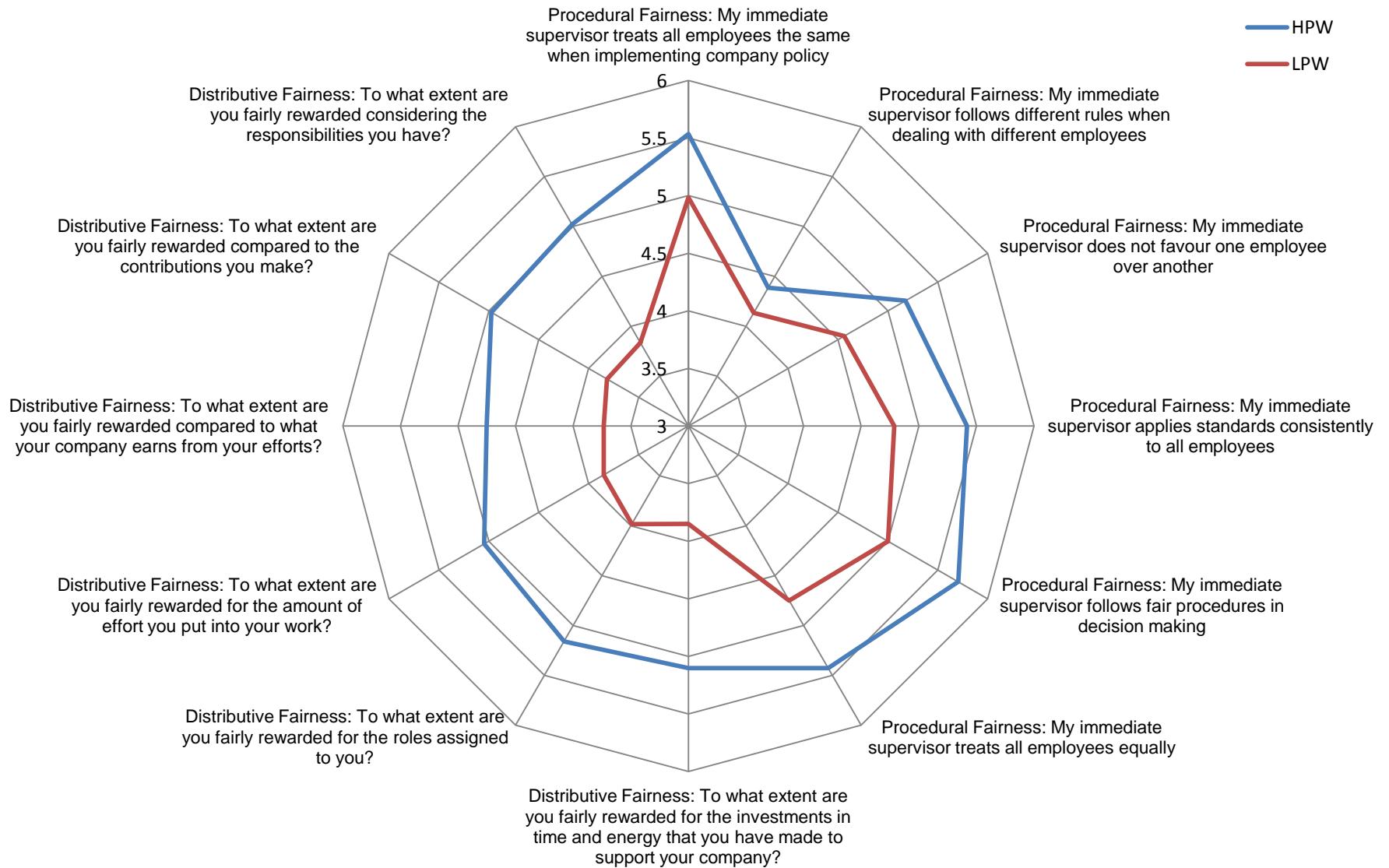
Figure 13 shows that on all twelve measures of fairness HPWs perform better than LPWs. The twelve measures of fairness fall into two major categories: *procedural fairness* and *distributive fairness*<sup>20</sup>. Procedural fairness refers to how supervisors implement procedures and processes in the organisation and whether these are implemented in a fair and equitable manner. Distributed fairness concerns the extent to which rewards and recognition are fairly distributed relative to a person's efforts, responsibilities and contributions.

Figure 13 shows that the greatest difference between HPWs and LPWs is in distributed fairness, where on average HPWs score 30.3% higher than LPWs, compared to a 12% difference in procedural fairness. It is clear that compared to employees at HPWs, employees in LPWs perceive that they are less fairly rewarded for their work efforts and contributions.

These measures of fairness demonstrate that in addition to industrial relations legislation and frameworks, employees' sense of fairness are very much determined by the leadership, culture and management practices of the organisation.

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<sup>20</sup> Source: Brashaer T. G, Brooks C. M. and Boles J.S. (2004), Distributive and procedural justice in a sales force context: Scale development and validation, *Journal of Business Research*, 57 (2004) 86– 93.



**Figure 13: Procedural and Distributive Fairness in HPWs and LPWs**  
 (HPWs and LPWs are identified using an Index that excludes fairness)<sup>21</sup>

<sup>21</sup> See Section 2.11 for a discussion of circularity and how this has been addressed in the study.

### 3.5.5. Leadership

Leadership is a process whereby one person exerts influence over another in an attempt to guide, influence and facilitate activities and relationships in a team or in an organisation. Nevertheless, there are differences in opinion among scholars over a number of leadership aspects, such as, who exerts the influence, the intended beneficiary of the influence, the manner in which the influence is exerted, and the outcome of the influence attempted.

As figure 14 illustrates, HPWs enjoy better quality leadership than LPWs. HPWs are associated with higher levels of *authentic leadership*, leaders who have a strong *developmental orientation* and leaders who *prioritise people management* as a key priority<sup>22</sup>.

*Authentic leaders* are understood to know the goals for the future, to be clear about the importance of those goals, and to show integrity in how they conduct themselves and carry out their leadership activities. This concerns a leader's ability to formulate and communicate a compelling vision and persuade the workforce that the organisation's direction into the future is promising and convincing. When authentic leadership is in place, employees trust their supervisors and their ability to realise compelling visions of the future. Authentic leaders also focus on increasing people's belief in shared goals and shared values. They come across as credible individuals, who "walk the talk", "live the values" and "practice what they preach". Authentic leaders are also receptive to feedback, even criticism, and see this as a learning opportunity to improve their leadership skills and performance.

Figure 14 also shows that leaders in HPWs have a high level of *developmental orientation* with clear preferences for experimentation and the delegation of responsibility and leadership opportunities. Such leaders focus on increasing staff involvement in decision making and on fostering collaboration. Leaders provide intellectual stimulation by encouraging creative problem-solving and by giving employees at all levels the opportunity to champion and lead change. HPWs are in this regard a workplace where not only managers implement initiatives; instead, there is significant delegation along this path. In other words, the role of leadership is to provide a collective future where it is possible for many to participate in its realisation. Leaders in networked organisations recognise that they are not omniscient and that they require input from followers to maximise decision and performance effectiveness. There is a persuasive argument that higher performing workplaces are those where all employees are encouraged, enabled and motivated to contribute to their full potential and to actively lead and champion workplace change. As such, a leader is not necessarily determined by his or her position in the organisational hierarchy but rather by his/her capacity to champion a given agenda, have a vision and implement this to affect workplace change for the benefit of the organisation and its customers.

Developmental leadership is positively linked to workplaces that are described as innovative and experimental. Staff who are supported in their innovation ambitions are likely to be more creative because they are given support to "try out new things". Importantly, leaders with a high degree of developmental orientation provide

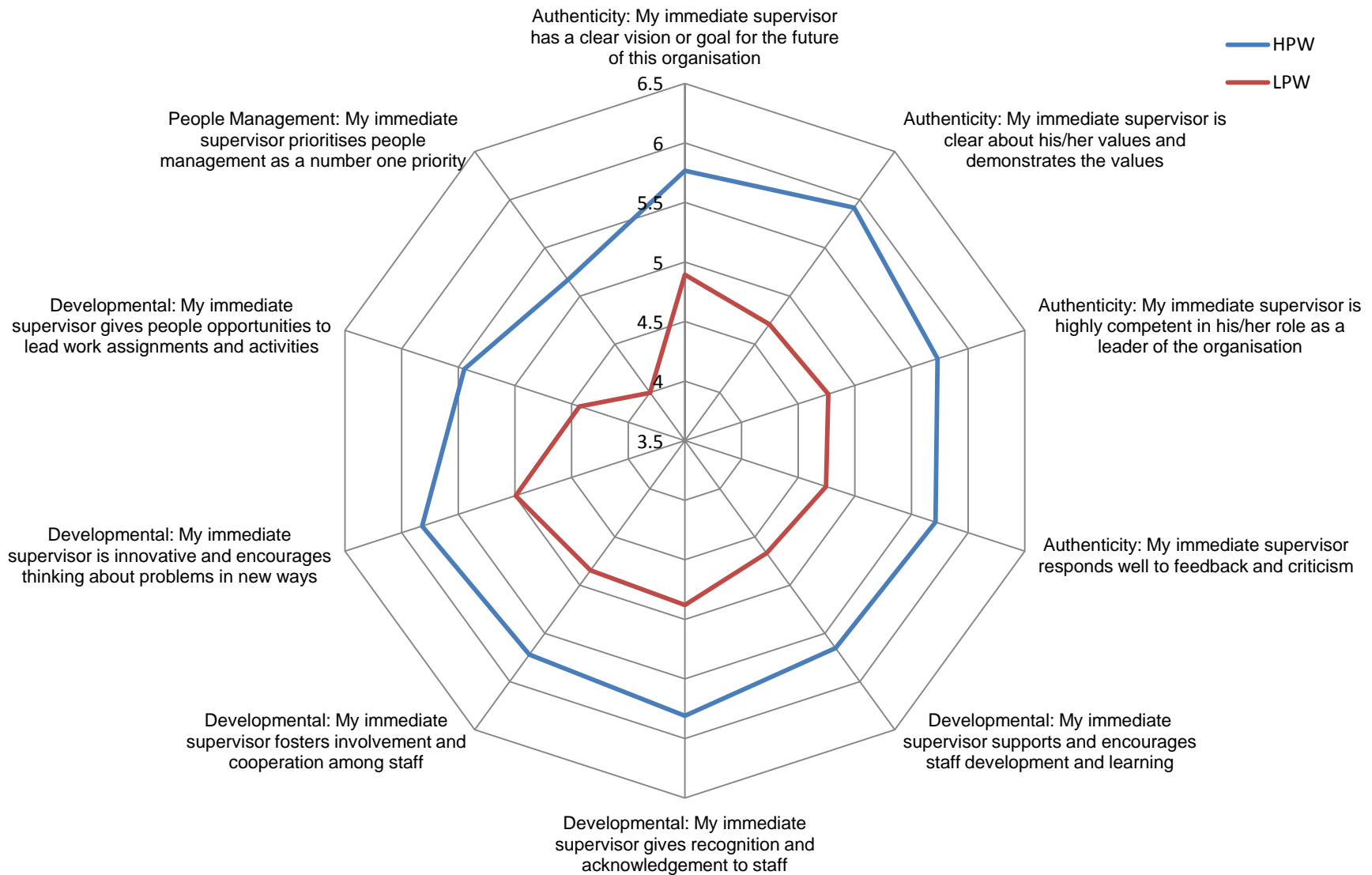
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<sup>22</sup> Inspired, amongst others, by: Carless (2000), A Short Measure of Transformational Leadership, *Journal of Business and Psychology*, Vol. 14, No. 3, Spring 2000, pp. 389-405; Yukl, G. (2009), *Leadership in organisations* (7th edition), Upper Saddle River, NJ, Prentice Hall.

ample recognition to, and acknowledge employees who excel at work. This might be in the form of accolades, prizes, or by simply saying thank you or by sharing success stories with the rest of the organisation.

Figure 14 illustrates that leaders in HPWs *prioritise people management* as a key management priority more so than leaders in LPWs. This is related to a leader's ability to support all employees, regardless of seniority, gender, religion and race to "be the very best they can at work". Such a leader provides continuous feedback and mentoring. He or she spends much time in face-to-face conversations with staff and teams and is commonly available for "1-on-1 time". He or she is a person who shows genuine interest in and care for another person's growth opportunities and who truly cares about the members of their team. It is also a person who respects diversity and who is not afraid to provide frank feedback when necessary. Employees who perceive their leaders to provide individualised support generally trust their leaders more and are more committed and productive because they feel valued and experience less role conflict than do employees who receive less individual support.

Leadership undoubtedly has one of the biggest impacts on an individual's performance at work. It is in many cases the relationship between a supervisor and a staff member that determines the individual's performance at work, including his or her efforts at work, level of commitment to the organisation, intention to stay or leave, etc. Of a broad range of possible contributors to an individual's performance at work, strong leadership skills have consistently been recognised to be amongst the most important factors to consider.



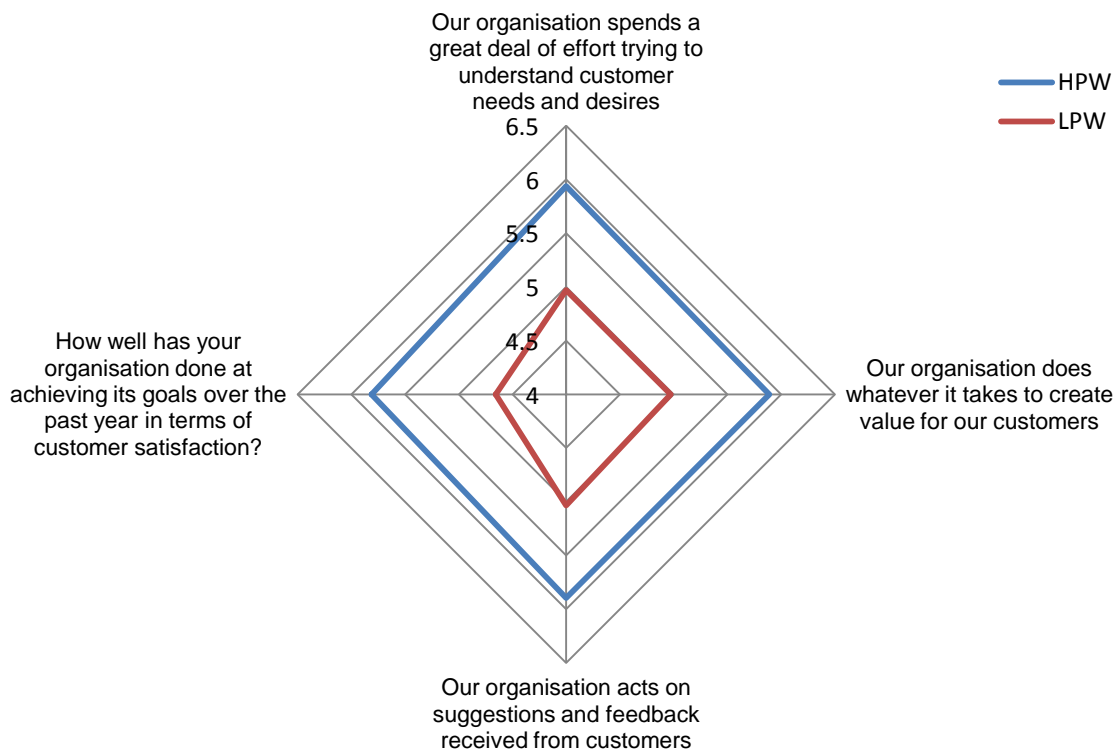
**Figure 14: Leadership in HPWs and LPWs**  
 (HPWs and LPWs are identified using an Index that excludes leadership)<sup>23</sup>

<sup>23</sup> See Section 2.11 for a discussion of circularity and how this has been addressed in the study.

### 3.5.6. Customer Orientation

Customer orientation<sup>24</sup> involves taking the customer seriously and concerns efforts by the organisation to shape its offers and activities around the customers' needs and interests. Figure 15 shows systematic differences between the customer orientation of HPWs and LPWs. These differences apply both to effects, e.g. perceptions of customer satisfaction are higher in HPWs than in LPWs, and to different types of organisational efforts.

Figure 15 shows that HPWs spend significant amounts of time and resources in attempts to understand the needs and desires of their customers. They encourage customers to provide feedback and employ staff who actively listen to them. In other words, HPWs seek dialogue and are curious to learn new things. HPWs also spend resources to transform knowledge about customer needs into new service and product offerings. Customer orientation also requires investment in processes that reveal to the organisation what customers want and need. This requires a committed workforce where employees take the customer seriously and actively participate in coming up with novel ways to better meet customer needs.



**Figure 15: Customer Orientation in HPWs and LPWs**  
(HPWs and LPWs are identified using an Index that excludes customer orientation)<sup>25</sup>

<sup>24</sup> Sources: Dev, C., Zhou, K.Z., Brown J. and Agarwal, S., (2009), Customer Orientation or Competitor Orientation: Which Marketing Strategy Has a Higher Payoff for Hotel Brands, *Cornell Hospitality Quarterly*, Volume 50, Issue 1 pp.19-28. Narver, J. C., & Slater, S. F., (1990), The Effect of a Market Orientation on Business Profitability, *Journal of Marketing*, 54(4), pp. 20-35.

<sup>25</sup> See Section 2.11 for a discussion of circularity and how this has been addressed in the study.

## 4. What do High Performing Workplaces Do?

### 4.1. Characteristics of Management Practices in High Performing Workplaces

The HPW Index presented and discussed in section 3 above has illustrated the performance differences between HPWs and LPWs across six areas.

What follows is an analysis of the management practices that HPWs deploy and benefit from. Management practices, in the form of organisational systems, processes, programs etc., offer executives and others an opportunity to intervene into organisational performance in a structured manner. For example, the institutionalisation of a talent management system is likely to improve the quality of an organisation's human capital by identifying 'rising stars' and offering employees clarity of their future career path and opportunities with the organisation. This may encourage staff to exert extra effort and become more committed to their organisation. It may also reduce employee turnover rates and costs.

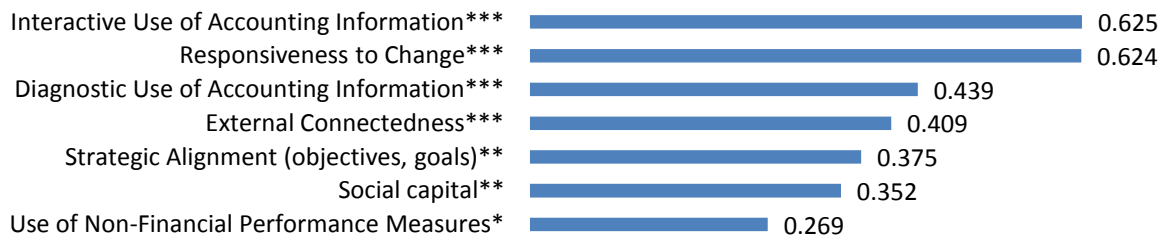
By correlating management practices against the HPW Index, this study identifies the practices that HPWs are most likely to deploy and benefit from. Figure 16 summarises the most significant practices. It shows the correlation values between each management practice and the HPW Index. Again a correlation value represents how closely a practice and the HPW Index co-vary, and can range from -1 (perfect negative correlation) through 0 (no correlation) to +1 (perfect positive correlation).

Those practices with the highest values (i.e., participation in decision making (.759), participation in strategy and planning (.688), skills utilisation (.665), interactive use of accounting controls (.696), participation in setting targets (.631)) have the highest level of co-variance with the HPW Index. In other words, these practices are more likely to be present in HPWs. Appendix 1 presents the management practices in order of the strength of their correlation with the HPW Index.

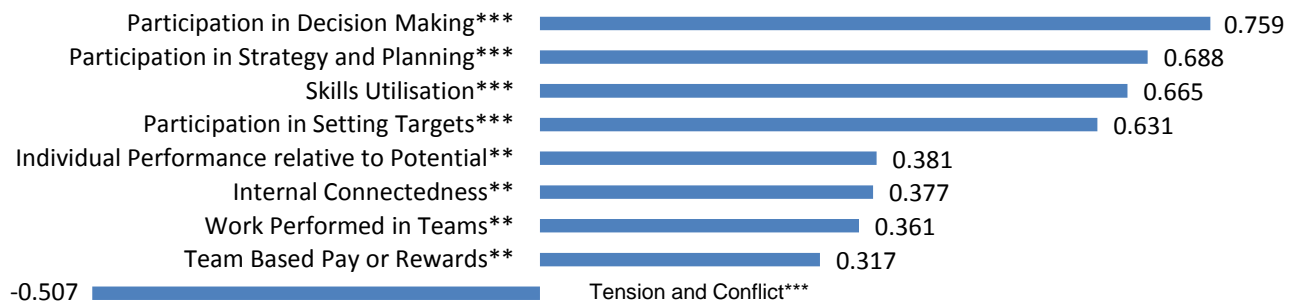
Again, the p-value of each correlation was calculated. All the correlation values shown in figure 16 are statistically significant at the level of \* $p < 0.05$ ; \*\* $p < 0.01$  or \*\*\* $p < 0.001$ .

-0.6      -0.4      -0.2      0      0.2      0.4      0.6      0.8

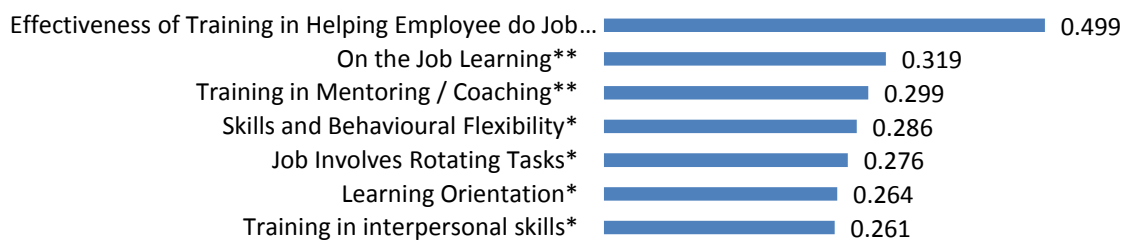
**Responsiveness to Change in Customer Networks using Accounting Information**



**Employee Participation in Decision Making Processes**



**Developing Behavioural and Skills Flexibility in Employees**



**Use and Quality of Information, Communication and Technology**



**Attract and Retain High Quality People**

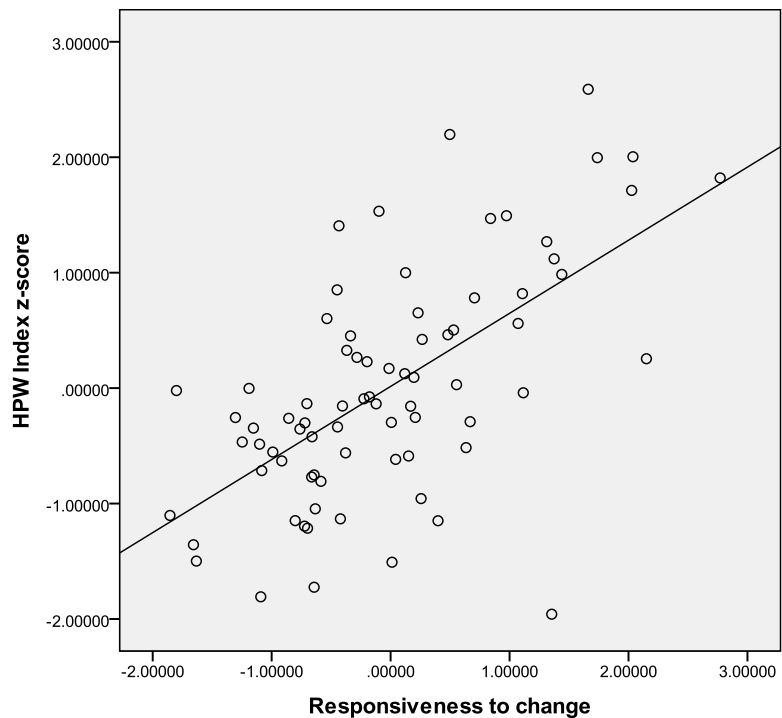


**Figure 16: Characteristics of Management Practices in High Performing Workplaces (correlation values)**



#### 4.1.1. Responsiveness to Changes in Stakeholder and Customer Networks using Accounting Information

Figure 17 shows the relationship between the HPW Index and responsiveness to change. This highlights that organisations need to be flexible in order to adjust to shifts in customer needs and changes in the environment. To do this well, they need high levels of external connectedness with key stakeholders, such as suppliers, customers, partners, etc (see figure 16). Managing stakeholders is an important feature of HPWs and service delivery often depends on a network of suppliers and sub-contractors. It is therefore important for HPWs to be knowledge rich and have high levels of social capital since these assets help them to coordinate comprehensive networks. In practice, this means that employees at all levels of an organisation engage in frequent contact with customers and other stakeholders in the industry and broader community. It also requires employees to connect well with colleagues and peers within the organisation, even if these are located in other functional divisions (internal connectedness) because it is by connecting with peers internally that the changing needs of customers and shifts in the environment can be shared and communicated across the organisation, and thus responded to.



**Figure 17: Correlation HPW Index and Responsiveness to Change**

Internally, HPWs use accounting controls (e.g. budgets, targets, KPIs, business plans, etc) frequently and often, both *diagnostically* to monitor and exploit existing resources, and *interactively* to explore strategic uncertainties and to debate how and when to innovate (see again figure 16).

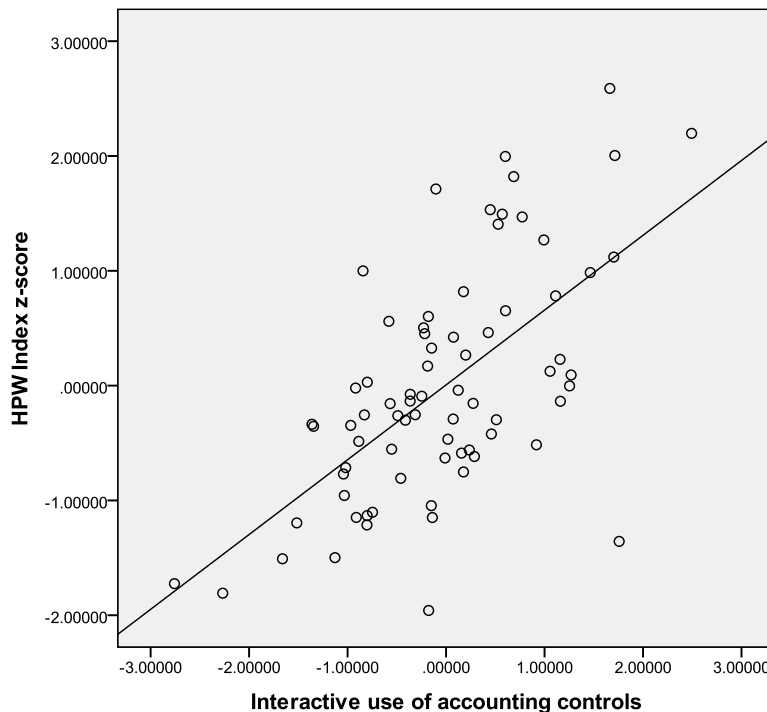
Diagnostic use of accounting control systems is an important management practice because it helps HPWs monitor performance and direct employee attention to original plans and targets should they deviate from the intended path. If, for example, revenues and profits are weakening in certain markets, diagnostic use of control systems attempts to increase revenues and/or to reduce costs so that the original profit target is not compromised. Diagnostic use is thus concerned to keep performance expectations on track. Accounting controls do this well. They reduce deviation from expected outcomes, monitor performance relative to set goals and ensure that established objectives are met. This is also where strategic alignment comes in and assists managers

in HPWs to 'cascade' targets and objectives down the organisational hierarchies and ensure common understanding of stated goals. Yet, a common concern of diagnostic use is that it can 'dampen' creativity by reducing the opportunities for variation and surprise.

This is where interactive use of accounting controls comes in (see figure 18). In the interactive mode, there is generally a stronger focus within the organisation on exploring new opportunities resulting from e.g. shifts in the market or elsewhere, and to stimulate the development of new ideas and creativity. When used interactively,

employees are encouraged to challenge and question the underlying assumptions of action plans (not merely follow them). The focus is on stimulating people's imagination by considering possible futures and by revising goals and business objectives. By using control systems interactively, organisations become interested in spotting and understanding changing trends and conditions in the market place. Rather than seeking to reduce variation, the organisation attempts to strike up new relations and new strategies.

This type of use is strongly associated with the HPW Index (see again, figures 16 and 18).



**Figure 18: Correlation HPW Index and Interactive Use of Accounting Controls**

HPWs also share performance and company information with employees at all levels, not just senior executives or board directors. They have stated goals and objectives, and employees understand what they need to do to help achieve these.

HPWs are information rich and make extensive and continuous use of non-financial performance measures for the purpose of understanding their key stakeholder groups of customers, employees, and suppliers (table 5).

**Table 5: Associations between Non-financial Performance Measures and the HPW Index**

	<b>Correlation with HPW Index</b>	<b>P-value</b>
<b>Customer relations</b>	<b>.281*</b>	<b>.013</b>
<b>Employee relations</b>	<b>.370**</b>	<b>.001</b>
<b>Supplier relations</b>	<b>.237*</b>	<b>.038</b>
Operational performance	.193	Not significant
Service and quality	.206	Not significant
Alliance relations	.179	Not significant
Environmental concerns	.046	Not significant
Product and service innovation	.098	Not significant
Community relations	.183	Not significant

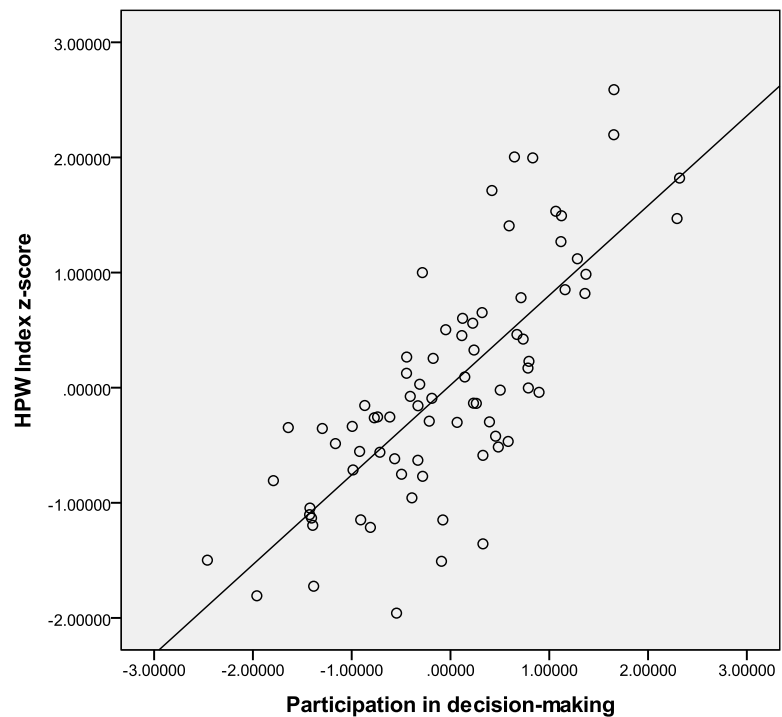
\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

#### 4.1.2. Employee Participation in Decision Making Processes

Figure 19 displays the relationship between the HPW Index and employee participation in decision making. Participation in decision making is important to HPWs because it ensures knowledge is shared and flows in multiple directions. HPWs

organise service production in such a way that responsibility is distributed among the workforce. Distribution enables the transfer and sharing of knowledge and this is a form of coordination that service based HPWs deploy and benefit from.

Distribution of responsibility also assists in creating commitment amongst employees who exert extra effort because there is a sense of ownership and pride associated with doing a good job and with being a member of the organisation. This is associated with a smaller

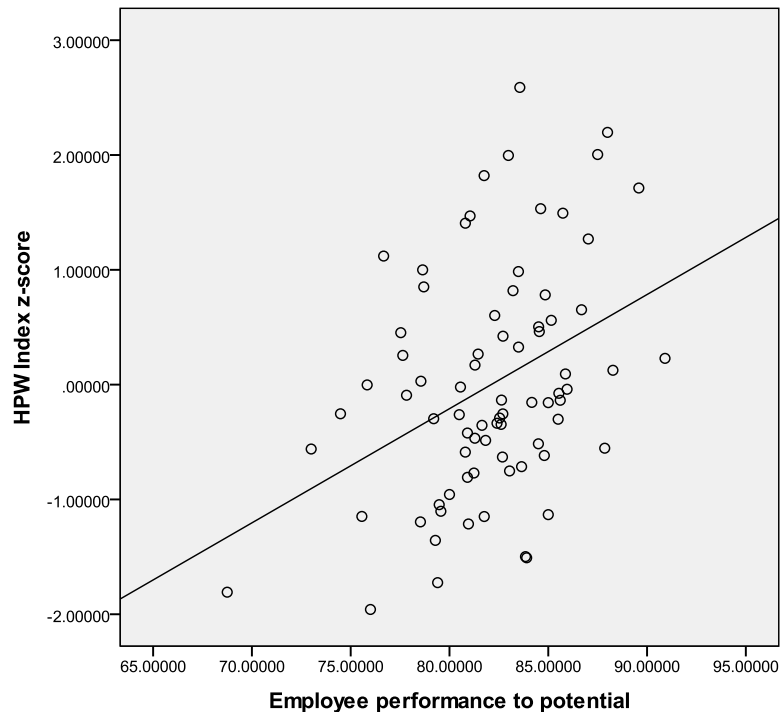


**Figure 19: Correlation HPW Index and Participation in Decision Making**

gap between 'potential to performance' (figure 20) as employees in HPWs are more likely to realise their potential at work.

Participation in decision-making also stimulates interaction among people with diverse sets of experiences and skills and this is important to creativity and the development of new service ideas.

Skills utilisation is another key characteristic of HPWs (see figure 16). A HPW is an organisation that maximises the use of employee skills and abilities by asking them to engage in problem solving and in the design of creative solutions to emerging problems.



**Figure 20: Correlation HPW Index and Employee Performance to Potential**

Participation in decision making is facilitated by management practices such as high levels of internal connectedness, team based work and reward structures as well as the formation of cross-disciplinary teams (see again figure 16). The deployment of such practices to increase employee participation is different to what has been reported in previous studies on HPWs; e.g. manufacturing industries have traditionally witnessed a greater use of consultative forums, such as OH&S committees and quality circles. These practices were not prevalent among the service organisations that participated in this study.

Other management practices used by HPWs to increase employee participation in decision making include participation in strategy and planning, budgeting and target setting (figure 16). Given that employees are closest to the customer it is important that their views and voices are heard so that such knowledge can be shared and considered elsewhere in the business.

HPWs excel at engaging staff at all levels in developing, implementing and monitoring strategy. This means that managers actively seek information, advice and points of view from peer managers and also from subordinates when they devise strategies, new activities and change programs. It can also mean that subordinates are in charge of the design and creation of change programs and e.g. new ways to take service offerings to market. HPWs thus have a knowledge intensive culture where strategic planning processes are used to inquire into the nature of changing circumstances and where employees at all levels work together to co-produce new solutions and responses.

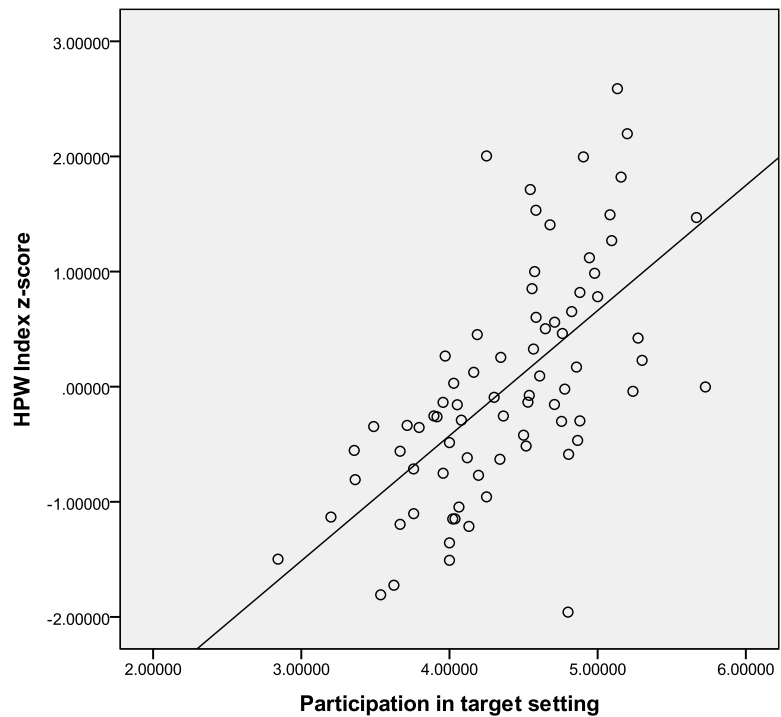
Participation also happens in the budgeting and target setting process where managers consult with other managers and employees situated across the organisation (see figure 21).

This brings the knowledge of subordinates and others to the planning table and helps to develop clarity of goals and objectives.

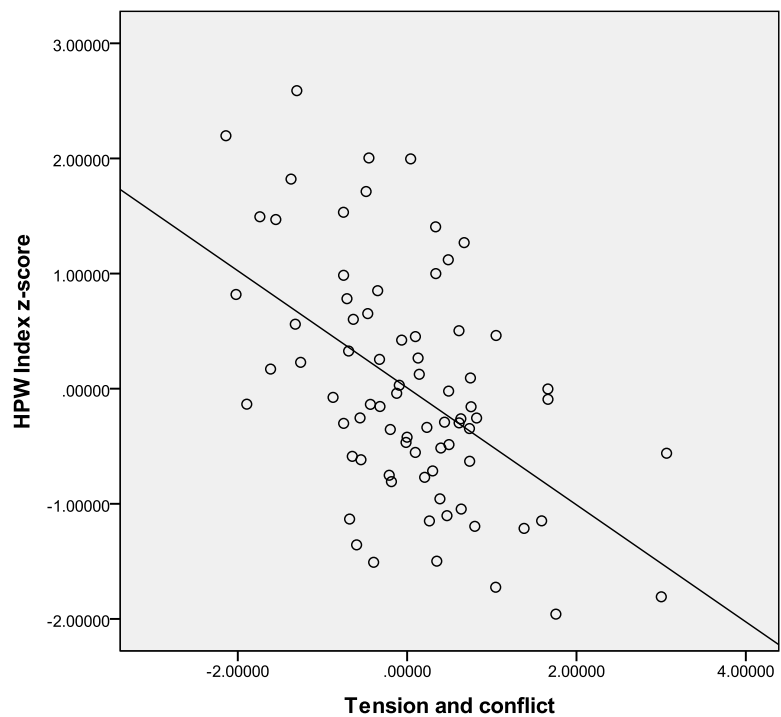
In practice, this means that the targets set are not a surprise but rather a process of agreeing and negotiating what is achievable and feasible given the shared knowledge available. The role of participative budgeting in HPWs is to help learning, develop clarity and exchange insights and aspirations within and beyond the organisation so that customers can be better served.

On the down side, participation in decision making processes can raise the level of tension and conflict at work as different (sometimes competing) interests need to be debated and potentially resolved. Interestingly, tension and conflict appear to be low in HPWs (see figure 22).

This indicates that HPWs are those organisations that manage tension and conflict well.



**Figure 21: Correlation HPW Index and Participation in Target Setting**



**Figure 22: Correlation HPW Index and Tension and Conflict**

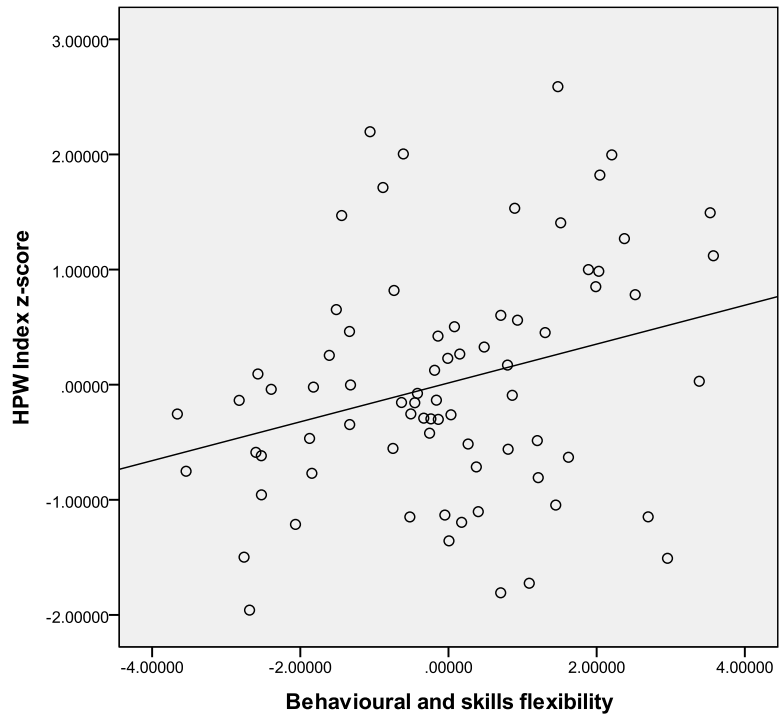
### 4.1.3. Developing Behavioural and Skills Flexibility in Employees

Figure 23 shows the relationship between the HPW Index and behavioural and skills flexibility. Behavioural and skill flexibility is a key characteristic of HPWs as such employee attributes foster an adaptive workplace culture. On-the-job learning is one way in which to develop such flexibility since employees are continuously exposed to new problems and faced with uncertainties about shifting customer needs that require responses (figure 24).

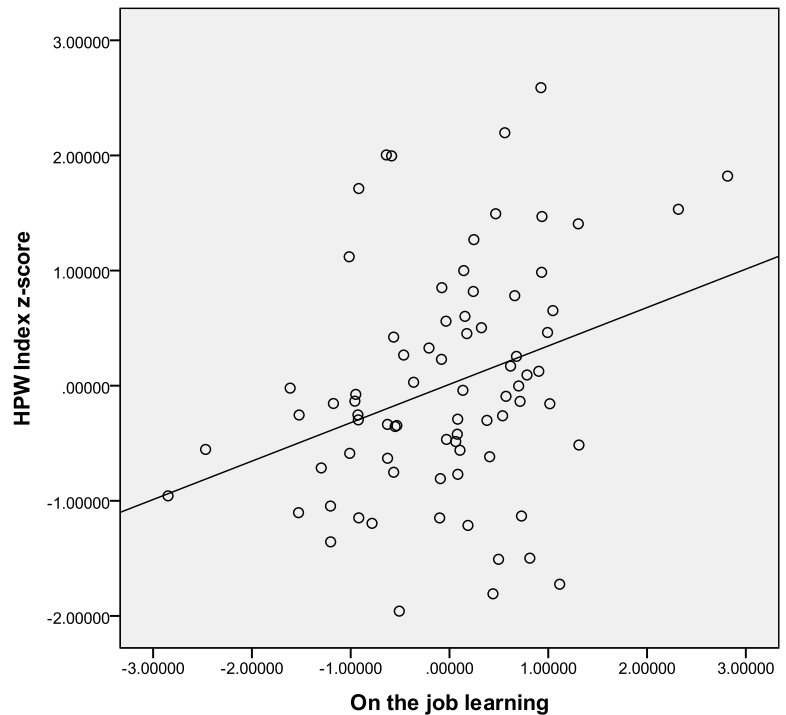
Other management practices used by HPWs to develop skills and behavioural flexibility in staff include rotation of tasks and mentoring or coaching programs (figure 16). The latter are 'newer' forms of people development that tap into expert networks and enhance the transfer of tacit knowledge, which may not occur via formal education or training programs.

Training in HPWs is not necessarily effective as an intervention in its own right (e.g. training hours per employee and investment in training per FTE are not significant when correlated with the HPW Index). Simply investing more in training has little association with HPWs. Rather, for training to be effective, it has to assist the employee do his/her job better (see again figure 16).

Not surprisingly for the services sector studied here, training in interpersonal skills was associated with the HPW Index. There was no correlation between the proportion of the training budget spent on the many forms of training, including technical training, compliance training (OH&S), etc., and the HPW Index (see appendix 2 for details).



**Figure 23: Correlation HPW Index and Behavioural and Skills Flexibility**



**Figure 24: Correlation HPW Index and On the Job Learning**

#### 4.1.4. Use and Quality of Information, Communication and Technology (ICT)

ICT is a key resource in service based HPWs. HPWs, for example, have ICT in place to support business activities, to reduce service delivery costs, and to improve productivity and profitability. ICT supports an organisation's operational processes and reduces production costs by making information available and by connecting people within and beyond the organisation.

ICT in HPWs also supports the organisation's business strategies and organisations that consider themselves to have good alignment between their business and ICT strategies are associated with higher levels of performance. In such instances, ICT can help to improve the quality of services and customer experience by allowing the organisation to analyse the nature of customer and stakeholder relations and by building new types of connectivity between the organisation and its environment.

Furthermore, the ICT in HPWs is of higher quality than that of LPWs. Quality of ICT concerns the extent to which ICT is accessible to employees, is user friendly and relevant to their jobs. As displayed in figure 25 these features are associated with HPWs as is the satisfaction of employees with ICT provision. In HPWs, ICT is likely to be a key resource for employees to carry out their daily tasks.

The use of ICT in HPWs has little to do with the types of technology used (e.g. intranets, blogs, social networking sites). This suggests that what counts is how the technology is used rather than simply having more (and different kinds) of it. Further, there

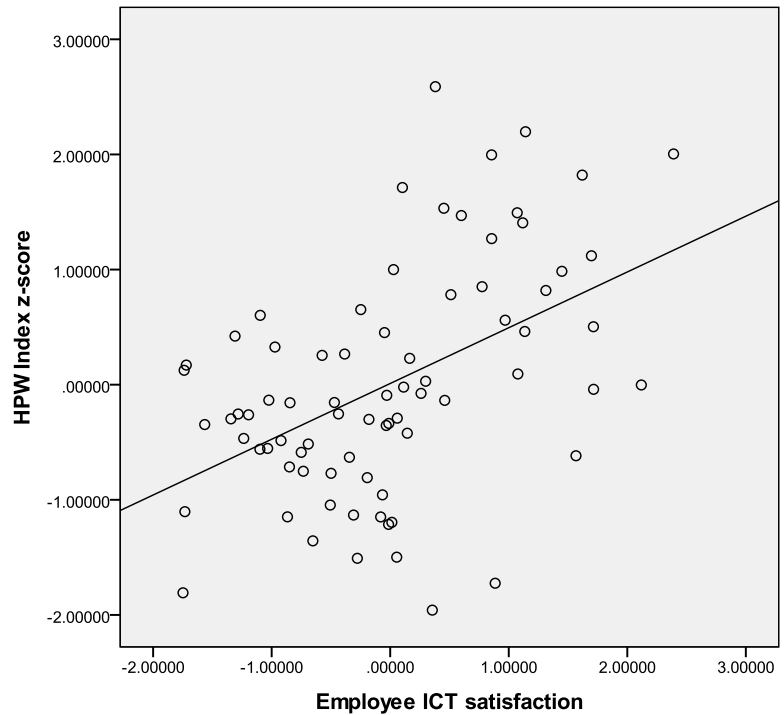


Figure 25: Correlation HPW Index and Employee ICT Satisfaction

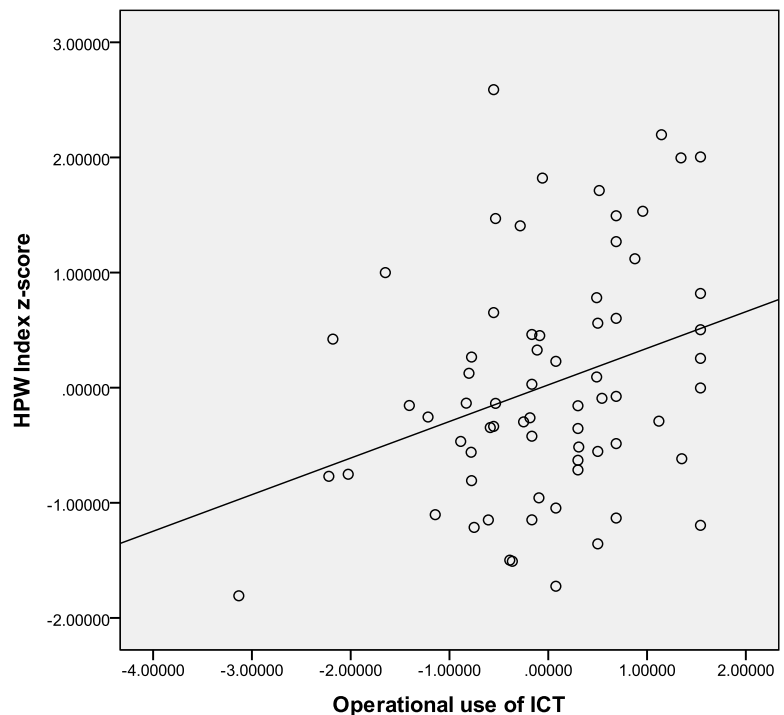


Figure 26: Correlation HPW Index and Operational use of ICT

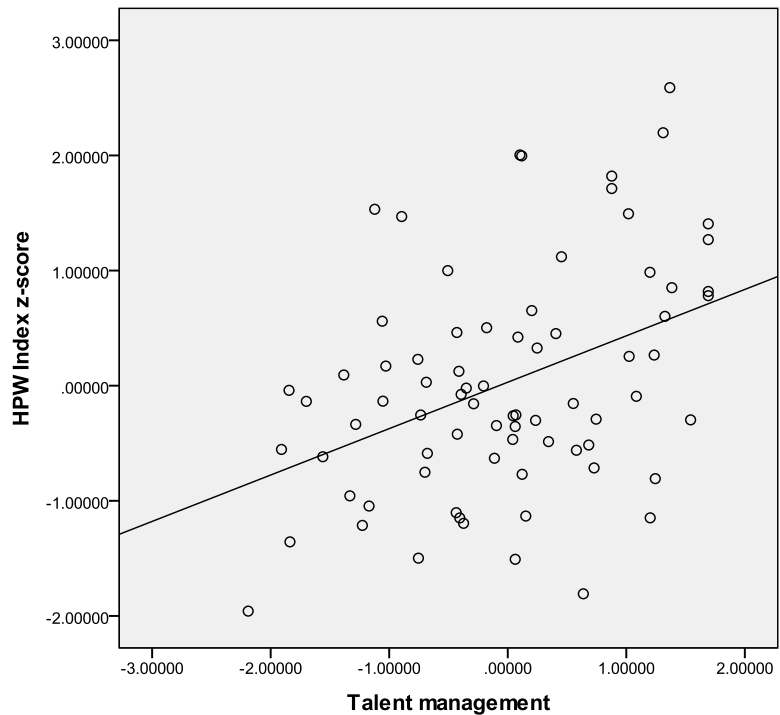
is no association between ICT investment per FTE or ICT spending as a percentage of revenue and the HPW Index. Simply spending money on ICT and implementing new technology is not related to HPWs; rather, it is the use, quality and deployment of ICT that seems to make a difference to performance (see figure 26).

#### 4.1.5. Attracting and Retaining High Quality People

HPWs make extensive use of human resource management systems to attract and retain high quality human capital. Human capital is a key intangible asset in service based organisations and a point of differentiation in a competitive market place. Yet human assets are intangible resources and behave differently to traditional tangible assets. Uncertainty is higher as people can exit the organisation at any point in time taking valuable tacit knowledge with them. Variability in performance is also higher as people's behaviours are not as predictable as that of a machine. As a result, human capital assets require closer attention and management. HRM systems assist managers to do so by formalising workplace processes and procedures.

Techniques used in HPWs to attract and retain high quality staff include practices such as talent management systems (see figure 27) and competitive salaries (see again figure 16). Furthermore, recruitment efforts are intensified to ensure high quality staffs are selected and recruited (figure 16).

Performance evaluation programs (figure 16) are commonly used by HPWs to align employee behaviour with company goals. Such programs are characterised by regular performance feedback outside of the formal review process, the opportunity for employees to participate in goal setting and the discussion of professional development activities.



**Figure 27: Correlation HPW Index and Talent Management**



## 4.2. Culture and Values in High Performing Workplaces

An organisation's culture refers to the values and practices shared throughout the organisation (or work group). A shared set of values fulfils a number of important functions in a business. First, shared values can create a sense of identity and belonging among organisation members and such feelings often cultivate commitment. Second, shared values enhance social system stability by avoiding potentially disruptive conflicts of interest. Third, cultural values can be used as a framework for making decisions that can be beneficial in the absence of policy and procedures. Finally, culture can direct and shape behaviour - it is a form of behavioural control.

This study examined the extent to which the participating organisations exhibited one of more of the following four types of culture:<sup>26</sup>

- Control culture: Focus is on management control and stability.
- Results culture: Focus is on achieving outcomes and results.
- People culture: Focus is on caring, collaboration and a concern for people.
- Change culture: Focus is on innovation, responsiveness and adaption.

The study finds that HPWs exhibit more than one culture type. Indeed, three out of four cultures had a positive and significant correlation with the HPW Index. Table 6 illustrates that HPWs exhibited the traits of a *results*, *people* and *change* oriented culture. It also shows that a *control* culture has a negative and significant association with the HPW Index.

**Table 6: Correlations between Culture Types and the HPW Index**

	<b>Correlation with HPW Index</b>	<b>p-value</b>
Cultural type: Control	-.253*	.027
Cultural type: Results	.439 ***	.000
Cultural type: People	.485 ***	.000
Cultural type: Change	.447 ***	.000

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001

This suggests that HPWs are characterised by a culture and set of values where people welcome and seek to introduce change and innovation, where leaders care for their employees and foster collaboration, and where there is an ambition to deliver results and a focus on achieving goals.

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<sup>26</sup> Source: Competing Values Framework (Quinn and Rohrbaugh, 1981).

## 5. What Barriers to Performance do HPWs and LPWs Experience?

This study also sought to identify management issues that are seen to be a challenge to the participating organisations. The intention is to expose these issues so that impediments to performance can be better understood and potential solutions developed to address these barriers.

The study finds that both HPWs and LPWs experience a range of challenges and barriers to lifting workplace performance. Figure 28 displays these major challenges and shows the differences in the level of importance of each of these for HPWs and LPWs respectively. A key point to note is that LPWs reported that barriers to lifting performance were significantly higher than HPWs.

The three most significant barriers for both HPWs and LPWs included:

- Motivating the workforce to assume greater responsibility.
- Being able to retain highly talented individuals.
- Creating a flexible and responsive workplace culture.

LPWs faced additional barriers that did not register as significant challenges with HPWs. These include:

- More closely linking employee pay with performance.
- Providing employees with greater involvement in deciding how work is done.
- Improving the people management skills of managers and supervisors.
- Securing resources to invest in developing employee skills and capabilities.
- Improving employee productivity.

A number of barriers, identified as important in other studies, were not listed as significant obstacles to the participating organisations in this research (these were the barriers that were rated below four in the study):

- Managing diversity.
- Having open communication with staff.
- Developing more collaborative partnerships with unions.
- Creating more flexible work arrangements.
- Developing more cooperative relations with our workforce.
- Improving workplace safety.

Question: We would like to learn about the variety of issues that may act as barriers to lifting your organisation's performance. Please indicate below which of the following issues you see to be challenging to lifting your organisation's performance.

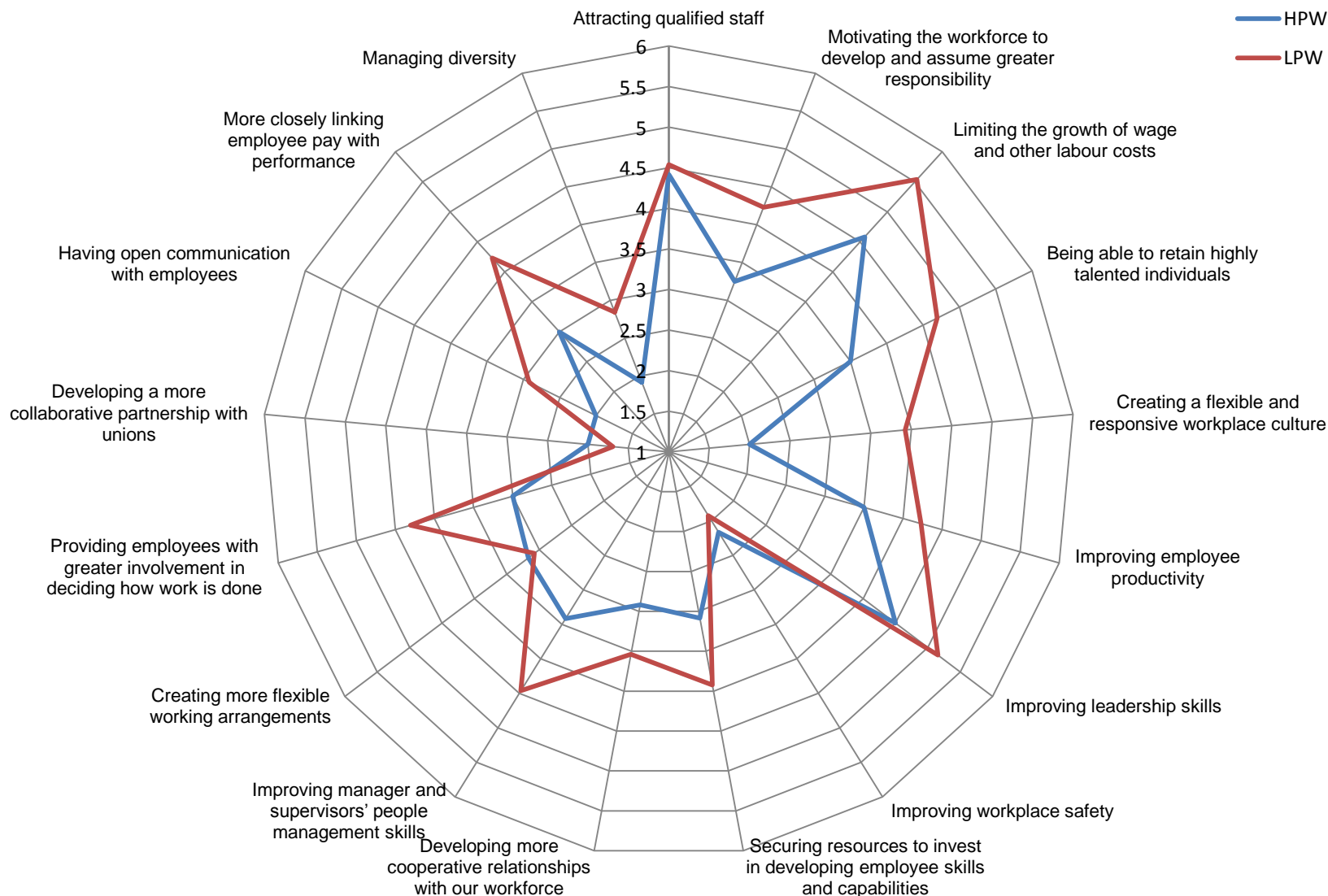


Figure 28: Barriers to Lifting Organisation Performance

## 6. Controls

A number of controls, suggested by the literatures on management practices and organisation performance, were included in the study. The aim of controls is to reduce the risk that organisational performance is explained by other factors, e.g. the organisation's age, ownership, competitors, demand uncertainty, strategy etc.

The correlations between the HPW Index and three groups of controls: 1) organisational demographics; 2) the external environment, and 3) business strategy, are shown in tables 7 to 9.

The controls show no significant correlations with the HPW Index. This indicates that the association between performance and the characteristics and management practices discussed in this report are unlikely to be due to relationships with other organisational characteristics. In other words, the management practices examined here significantly influence workplace performance.

**Table 7: Organisational Demographics**

	<b>Correlation with HPW Index</b>	<b>p-value</b>
Age of organisation	-0.049	0.67
Number of workplaces	-0.121	0.294
Number of Full Time Equivalentents	-0.121	0.296
Public company	0.170	0.140
Private company	-0.119	0.303
Partnership /sole trader	0.046	0.693
Charity/Mutual	0.059	0.610
Government <sup>27</sup>	- 0.051	0.662
Family business	- 0.127	0.272
% of Australian ownership	0.128	0.272

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<sup>27</sup> Government owned businesses and other public sector organisations.

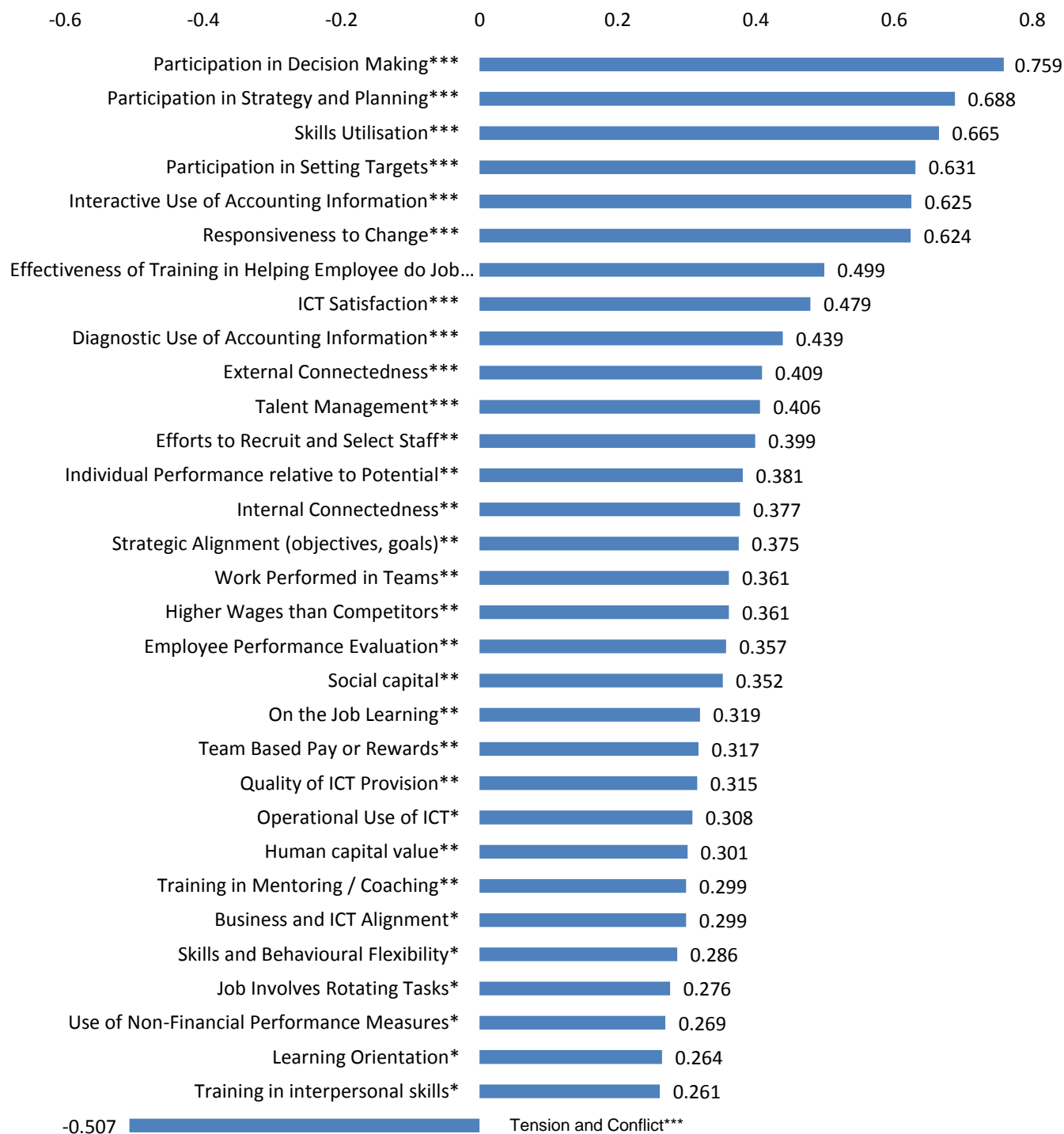
**Table 8: The External Environment**

	<b>Correlation with HPW Index</b>	<b>p-value</b>
Number of competitors	-0.035	0.784
% of revenue from exports	-0.060	0.606
% of revenue from largest customer	-0.186	0.011
Uncertainty of demand	-0.049	0.670

**Table 9: Business Strategy**

	<b>Correlation with HPW Index</b>	<b>p-value</b>
Has a business strategy	-0.100	0.394
Has a business plan	0.010	0.930
Low cost strategy	-0.164	0.172
Quality strategy	0.023	0.846

## Appendix 1: Characteristics of Management Practices in High Performing Workplaces (sorted by strength of correlation)



## Appendix 2: Training Practices in HPWs

	Correlation with HPW Index	p-value
<b>Effectiveness of Training in Helping Employee do Job Better</b>	<b>.499***</b>	<b>.000</b>
<b>% of training budget spent on training staff in mentoring / coaching</b>	<b>.299**</b>	<b>.010</b>
<b>On the Job Learning</b>	<b>.319**</b>	<b>.007</b>
<b>% of training budget spent on training staff in interpersonal skills</b>	<b>.261*</b>	<b>.042</b>
Hours of training received per employee	.147	.202
% of training budget spent on executive development	-.051	.661
% of training budget spent on compliance training e.g. OH&S	-.178	.120
% of training budget spent on training staff in people management skills	.104	.366
% of training budget spent on training staff in communication skills	.028	.809
% of training budget spent on training staff in team building skills	.139	.229
% of training budget spent on training staff in leadership development	.098	.395
% of training budget spent on training staff in technical training	-.009	.941
% of training budget spent on training staff in negotiation skills	.147	.202
Proportion of Employees Trained last 12 months	.215	.060
Training Employees in a Variety of Jobs or Skills (cross-training)	.170	.140

## About the Society for Knowledge Economics

The Society for Knowledge Economics (SKE) is a not-for-profit organisation founded in June 2005. Members include Microsoft, Westpac Banking Corporation, CPA Australia, PricewaterhouseCoopers, Hewlett Packard, KPMG, and the University of New South Wales.

The SKE vision is to make Australian workplaces the most innovative, productive and fulfilling places in the world to work.

A leading knowledge economy is one that aims to better understand, develop and leverage the most potent force in creating economic and social value today—its people and their collective knowledge.

To this end, the SKE conducts industry-based research projects and prepares policy submissions, research papers, thought leadership pieces and editorials to influence policy directions and management and leadership practices in the Australian economy. Visit [www.ske.org.au](http://www.ske.org.au) for more information.

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The SKE Industry Partnering and Research Program brings together representatives from private, public, research and community organisations to investigate, research, test and develop practical programs and tools for the benefit of Australian workplaces as a whole.

Some of our research partners include:

- Business Council of Australia
- Certified Practising Accountant (CPA) Australia
- Department of Education, Employment and Workplace Relations, Canberra
- Department of Finance and Deregulation, Canberra
- Department of Innovation, Industry and Regional Development, the Victorian Government
- Innovation and Business Skills Australia
- Organisation for Economic Co-operation and Development (OECD) World Intellectual Capital Initiative
- University of New South Wales
- United States Enhanced Business Reporting Consortium (the U.S. Securities and Exchange Commission)





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